

Austria	100.00	Belgium	100.00	Denmark	100.00	France	100.00	Germany	100.00	Greece	100.00	Italy	100.00	Japan	100.00	Netherlands	100.00	Portugal	100.00	Spain	100.00	Sweden	100.00	Switzerland	100.00	UK	100.00	USA	100.00	West Germany	100.00	Yugoslavia	100.00
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# FINANCIAL TIMES

**TUNISIA**  
Privatisation  
by stealth  
Page 6

FT No. 31,127

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Thursday April 19 1990

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## World News

### Islamic group says it will set American hostage free

A Lebanese group holding three American professors hostage said it would release one of the captives within 48 hours. The statement was accompanied by a photograph of Professor Jesse Turner, who was seized from the campus of Beirut University College in 1987. It was not clear if the hostage-takers were demanding concessions from the US State Department. There was no immediate response from the US State Department. Page 24

### Iraq gun confirmed

The UK Government confirmed that eight soldiers were killed by a machine-gun fire in the desert near Kuwait. Four soldiers were killed in an explosion in General Michel Aoun's barracks. Page 6

### Beirut children killed

At least 15 people, including 11 children, died when a school bus was hit by machine-gun fire in the east of Beirut. Four soldiers were killed in an explosion in General Michel Aoun's barracks. Page 6

### Nicaraguan peace

Nicaraguan Contra rebels and Sandinista army officials agreed on a rough draft of a ceasefire agreement, bringing a definitive end to Nicaragua's eight-year war. Crises to come. Page 8

### Airliner hijacked

A mental patient hijacked a Soviet aircraft bound for Leningrad and flew it to Vilnius, capital of the breakaway republic of Lithuania. He was arrested on arrival. Page 10

### Bush aide fined

Jennifer Fitzgerald, White House deputy chief of protocol and longtime aide to President George Bush, has been fined \$500 for customs violations by improperly bringing two fur garments into the US. Washington officials said. Page 10

### Pilot error blamed

Pilot error was the main cause of an Indian Airlines Airbus 320 crash in Bangalore in February in which 32 people died, the Indian Directorate General of Civil Aviation reported. Page 6

### Warmer welcome

The Australian warship Tobruk was met with fanfare at the Turkish port of Canakkale, 76 years after 8,000 Australians died attempting a landing at Gallipoli. Page 10

### Estonian currency

Estonia has contracted a foreign firm to print banknotes with a face value of 100m new kroons to replace the ruble, making it the first constituent Soviet republic to produce its own currency. Page 10

### Buthelezi defiant

South Africa's Zulu leader Mangosuthu Buthelezi says he is determined to play a central role in shaping the country's future despite efforts by Nelson Mandela's supporters to isolate him. Page 10

### Canada must explain

West Germany demanded an urgent explanation for the collision of two Canadian warplanes over Karlsruhe on Tuesday, one of its toughest reactions to Nato training flights. Page 10

### Kidnap victim freed

A wealthy Brazilian businessman was freed by kidnappers in the central city of Caracas after his family paid \$1m ransom. Odilon Walter Santos, 73, was abducted on April 8. Page 10

### San Francisco quake

A series of earthquakes rocked San Francisco on the 94th anniversary of the great earthquake of 1906. Nobody was hurt. Page 8

### White tigers born

Three white tiger cubs have been born in a Swedish zoo. A spokesman said the species was almost extinct. Page 10

## Business Summary

### Big lay-offs expected at Atlantic Computers

Large-scale lay-offs are expected today at Atlantic Computers, the UK leasing company which has been put in the hands of administrators. Redundancy notices were being drawn up yesterday at the group's premises, west of London. "They have already decided to fire 50-60 per cent of the people here," said a senior company director. Page 25

### Oil prices

Oil prices fell sharply again as markets registered disappointment at the outcome of crisis talks in Saudi Arabia, between oil ministers of Saudi Arabia, Kuwait and the United Arab Emirates. Page 25

### Commodities

In Paris the Bank of France did not cut its 9% per cent money market rate, leaving the franc at a mild discount. Current prices, Page 46. On Wall Street, the Dow Jones Industrial Index fell 32.86 to close at 2,783.11. Selective buying took Tokyo's share prices sharply higher. Page 46

### Markets

NORTON BID: American political opposition to BTR of Britain's \$1.64bn hostile bid for Norton, the Massachusetts-based services company, escalated with news of a proposed takeover involving Senator Edward Kennedy. It happened as Governor Michael Dukakis of Massachusetts signed a new piece of anti-takeover legislation. Page 25

### AIR FRANCE

announced a 27 per cent fall in annual profits and argued that a European Commission inquiry into its alleged abuse of a dominant market position was out of place. Page 25

### MLC and Capita

life insurance groups, are to merge with total assets of about \$4.1bn (\$7.7bn) to form Australia's third biggest life office. Page 25

### BMW of West Germany

is to restructure its parts distribution activities throughout Europe in preparation for the single EC market. Page 10

### HONEYWELL

US electronics and automation group, is to spin off its defence and maritime business into a separate company. Page 25

### DEUTSCHE Bank

was asked by Bulgaria's foreign trade bank, which has suspended repayments of principal on its foreign debt, to form a group to advise on a debt restructuring. Page 2

### SHELL OIL

of the US is to discontinue its involvement in healthcare and is seeking a buyer for its wholly owned Triton Biociences operation in California. Page 34

### EAST GERMANY

its economy nose-dived in the first quarter when trade with the Soviet Union slumped and industrial production tumbled. Reuters reported. Page 2

### SOUTH KOREAN companies

overseas investment increased sharply according to figures released by the Bank of Korea. Page 6

### BRITISH MIDLAND

UK's second largest scheduled airline, accused France of reducing competition on air routes after being refused permission for a new low-cost London-Paris business fare. Page 3

## Washington issues further warnings • Norway approached over gas supply

# Lithuanians ready to offer deal on talks with Moscow

By John Lloyd in Moscow, Lionel Barber in Washington and Karen Fossil in Oslo

THE LITHUANIAN parliament yesterday offered to halt all legislation for the next two weeks in return for talks with Soviet officials on the republic's independence. But late last night it was reported that oil supplies to the country's main refinery at Mazelkiai had been cut. An engineer at the plant said that the flow of oil had stopped at 9.30pm, apparently, he said, on Soviet orders. There was no confirmation of this from Moscow.

Earlier, as the breakaway republic made another conciliatory gesture, Washington issued further warnings to Moscow. Mr James Baker, US Secretary of State, said in testimony to Congress that trade and commercial contacts with the Soviet Union were being threatened by Moscow's failure to resolve the crisis over Lithuania.

He stressed, however, that any US retaliation against the Soviet Union would not affect the summit between Presidents George Bush and Mikhail Gorbachev on May 30. The latest moves came as Mrs Kazimiera Prunskiene, Prime Minister of Lithuania, left for Norway in the hope of obtaining an alternative source of energy in the event of Moscow cutting off oil and gas supplies.

European security tops Mitterrand/Bush agenda. Page 2; Interview with Lithuania's Foreign Minister, and background. Page 3; Baker warns Moscow on trade contacts. Page 8.

Mrs Prunskiene told reporters at Moscow airport that she planned to discuss possible oil purchases with political and business leaders. Lithuanian officials have already said they have had informal talks with Scandinavian and other companies about stepping in to fill any gaps created by a Soviet embargo.

The threats to stop energy supplies to the republic have so far proved empty. A senior Soviet official yesterday denied any moves to terminate supplies after Lithuanian claims that gas supplies would be cut and crude oil deliveries halted to the big Mazelkiai refinery.

Mr Alkim Mukhamedzyanov, Soviet deputy minister for the oil and gas industries, told the official news agency Tass that the Lithuanian claims were "completely groundless." He added: "We have received no instructions on this score from the Council of Ministers (government)." Lithuanian sources later confirmed there had been no interruption to the flow of energy.



Mrs Kazimiera Prunskiene, Lithuania's Prime Minister, speaking in Vilnius yesterday

A delegation of Lithuanian parliamentarians, under the leadership of Mr Branas Kuzmickas, deputy chairman of the republic's Supreme Soviet, will travel to Moscow, probably today, to be on hand for talks. A message from the Lithuanian Supreme Soviet to President Gorbachev and Mr Nikolai Ryzhkov, the Soviet Prime Minister, expressed "concern over the USSR's position and methods" in threatening to apply economic sanctions. Continued on Page 24

## EC points finger at US over trade

By Lucy Kellaway in Brussels

THE EUROPEAN Commission yesterday published a damning study of US barriers to trade, covering 50 obstacles including tariffs, Buy America rules and unreasonable product standards. The study, the fifth in an annual series, is the most detailed yet and contains evidence of barriers not previously cited.

These include restrictions on the activities of financial institutions, both in the kind of businesses they can offer and in their geographical spread. A range of other obstacles in the field of public procurement orders is also emphasised.

The report does not blame growing protectionist tendencies for all the barriers, although it notes the US has "a certain temptation" to protect its market as a result of its

THE US trade deficit narrowed sharply in February to \$6.49bn seasonally adjusted, the lowest monthly figure since 1986. The main factors in the \$2.8bn drop from January's figure were a rise in aircraft exports and a fall in oil imports. The decline was substantially bigger than economists had expected. However, because month-to-month movements in aircraft export shipments are usually erratic there was little market reaction.

With exports growing so far this year nearly twice as fast as imports, the trade deficit seems likely to continue to narrow. The trend reflects the slower growth of the domestic US economy and especially of investment spending. Page 24

### growing trade deficit

The continued existence of these barriers is undermining the multilateral trade system and casting doubt on the commitment of the US to resolving trade disputes on a multilateral basis, the report says.

It also accuses the US, which has recently published its own account of the unfair trade practices of others, of being guilty of many of the sins it

identifies in those countries. The report attacks much US trade legislation, blaming it for being arbitrary and claiming it hurts companies wishing to trade with the US by creating a climate of uncertainty. It states that the main difficulty faced by exporters to the US is that the market is becoming increasingly fragmented.

An increasing number of barriers are now at state, rather than federal level, it says. More seriously, it points to the unilateral nature of many of the US trade rules, highlighting the illegal moves by the US in retaliation to an EC ban on hormones in meat for human consumption; the slowness with which the US reacts to GATT panel rulings; and the "lukewarm" role played by the US in international decision making.

An EC official yesterday strongly denied that the report was souring the mood between the two blocs as the GATT negotiations entered a sensitive phase. The EC report was reasonable in tone, describing the US as "a comparatively open economy," which was in marked contrast to continued US complaints that the EC was a fortress, he said.

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## Bank of England drops plan to equalise banks' liquid assets

By David Lascelles, Banking Editor, in London

THE BANK of England has decided to drop controversial proposals that would have obliged all banks operating in the UK to hold a similar stock of liquid assets as a safety net. Instead, it will set rules for banks individually based on their specific circumstances.

The move, which follows unusually strong resistance by UK banks as well as foreign banks with branches in the UK, will be greeted with considerable relief in the City of London.

The decision will be conveyed to banks shortly by a letter to the British Bankers Association.

Mr Brian Quinn, executive director in charge of banking supervision at the Bank of England, said in an interview that the Bank had given careful consideration to comments on its latest set of proposals which was published at the end of 1988.

However, although the Bank believed that a liquidity regime was still needed, it accepted that the UK banking industry had become too diverse for a

common standard to be introduced. "We recognise that the market is on the move and that prescribing a requirement of liquidity now is not right," he said.

A further factor was the emergence of the European Community single market. Mr Quinn, who heads an EC banking supervisors committee established by the Delors Report on financial unification, said the EC may produce its own liquidity proposals before long. So it made little sense for the UK to press ahead on its own.

The Bank will hold discussions with all banks operating in the UK in the near future, and each will be given its own liquidity standard which takes into account its character and the sort of markets in which it operates.

Banks are already controlled on the extent to which they can mismatch their deposits and loans to exploit differences in interest rates.

The proposals were intended to ensure that all banks also had a stock of highly liquid

assets which they could sell to raise cash in a crisis.

However, banks objected to being told what type of assets they had to hold, particularly since the Bank was insisting that these include low-yielding government bills.

Foreign banks with UK branches also complained about having to comply with Bank of England rules when they were already subject to controls at home.

Over the years, the Bank has published no fewer than three sets of proposals on liquidity, prompting bankers to complain that it had got a bee in its bonnet about it.

At one point, normally compliant Japanese bankers in London even took the unusual step of making a representation to the Bank.

Mr Quinn denied that the Bank's change of heart amounted to a retreat. "This is not a climbdown but the application of common sense," he said, noting that it marked a reversion to the traditional Bank of England approach of flexible supervision.



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## Nicaraguan President-elect gets a foretaste of crises to come

Mrs Violeta Barrios de Chamorro (left) is being stalked by a political crisis even before donning the presidential sash. The approaching deadline for demobilisation of the Contra rebels may bring peace or chaos. Page 8

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## EUROPEAN NEWS

Solidarity meets  
nine years on to  
map out a future

By Christopher Bobinski in Warsaw

ALMOST NINE years after its first congress in Gdansk, Poland's Solidarity trade union meets today in the same Olivia hall to map out its future.

The political risks may have been far greater in September 1981 - three months later martial law was introduced - but at least the choices open to the then 10m-strong political movement were clear-cut. Now, eastern Europe's first movement to challenge the Communist party's political monopoly is facing some difficult questions.

Solidarity returned to the political scene through an agreement with the Communists in spring last year and secured the political initiative after its sweeping victory in elections last June. But its membership, at 2.2m, reflects apathy in the country and a feeling that, with Communism toppled, the movement no longer needs mass support.

Mr Lech Walesa, its leader, has said he intends to run for union office at the congress, but he is also eyeing the Polish presidency. At the same time, the movement is torn between seeking to keep its dominant political role and allowing the

initiative to pass to the Government and Parliament while simply occupying the position traditionally reserved for trade unions. Even that position is not devoid of question.

Mr Tadeusz Mazowiecki's Government, whose origins are firmly rooted in the Solidarity camp, will continue to demand support from the union. But as anxiety grows about falling living standards, the union is finding itself pushed into a more outspoken stance. This pressure comes both from its own members, and from the left-wing OPZZ unions and Walesa critics like Mr Marian Jurczyk from Szczecin, a Solidarity strike leader in 1980 whose Solidarity 80 movement declares itself to be the "true depository" of the movement's traditions.

The congress is to debate whether the union should establish a political party to represent its interests directly.

The Government's privatisation policy will come under attack as will growing unemployment - possibly reaching half a million by the middle of the year - and the government's pay curbs.

## Czech minister rebuked over police

CZECHOSLOVAK Interior Minister Richard Sacher was criticised yesterday for not getting rid of former secret policemen in his office, Reuters reports from Prague.

Two junior interior ministers, whose resignations Mr Sacher said he had requested, told a news conference their boss had blocked security checks on people and continued to be surrounded by members of the now-disbanded STB secret police.

"We feel that the security of the state has been threatened," First Deputy Interior Minister Vilém Cílek said.

Mr Sacher had "centralised

(the ministry's) activities to his person", added another deputy minister, Mr Jaroslav Procházka.

The two ministers, plus members of a commission set up to investigate Interior Ministry staff following last November's overthrow of the Communist regime, said Mr Sacher had kept a senior ex-STB man, Major Václav Novotný, as a trusted adviser.

They accused STB agents of influencing Mr Sacher and blocking "all sources of information". Novotný tried to run the ministry when Mr Sacher was away, Cílek said.

"The minister has surrounded himself with people

who used to be members of the secret police and were active in the fight against internal dissent," commission member Jan Kozlík said.

Results of the commission's work in screening Interior Ministry officials remained on Mr Sacher's desk for several weeks without any action being taken, he added.

The news conference was held in the premises of the Civic Forum movement, which has spearheaded recent criticism of Mr Sacher as being too soft on former police agents and informers.

Mr Sacher, a member of the centre-right People's Party which was allied to the Com-

munist Party until last November, defended his approach towards ex-STB members.

"People forget that not all these people can accept current developments. Many have lost lucrative jobs and privileges," he said.

Mr Sacher had a long discussion about his position with President Václav Havel and Prime Minister Marian Čalfa on Tuesday.

Afterwards, he said four headline Communist leaders, including former Party secretary general Miloš Jakes, were under investigation on suspicion of inviting Soviet troops to invade Czechoslovakia in 1968.

## European security tops French-US agenda

By William Dawkins in Paris and Lionel Barber in Washington

EUROPE'S changing security needs are expected to be the main subject for discussion between President George Bush and Mr François Mitterrand, his French opposite number, in Florida today.

The first private session between the two men since December takes place in an atmosphere of mutual unease over slight but significant differences in their visions of how Europe's security and political institutions should evolve and what part the US should play.

French officials deny any serious disagreement, but say

Mr Mitterrand plans to use the meeting to clarify a number of issues. While Washington is unlikely to ask France to join NATO's military wing, it is concerned to see a more co-operative French attitude to the alliance.

The officials have also been stressing in recent days that Mr Mitterrand's ideas for an axis of European defence should in no way diminish the US role in NATO.

"When it comes to maintaining a major alliance with the US, not only are we not against, but we think it is necessary," said Mr Hubert Vedrine, the French President's spokesman.

French officials have emphasised their full agreement with Washington that a unified Germany should be in NATO and that this must be achieved in a way that is not seen as aggressive by the Soviet Union.

Underlying the broad agreement on these general points, however, are differences of emphasis which have emerged in recent months over the future US role in Europe.

France is cool to US calls for tighter links between Washington and the European Community, a stronger Conference on Security and Co-operation, and for NATO to take more political decisions.

Mr Mitterrand's plans for a European confederation (unveiled at the new year and since his last private meeting with Mr Bush) do not include the US. Moreover, France feels the EC's response to changes in the east should be to work harder at its own integration and that further changes to European institutional arrangements should come later.

Western alliance  
begins to march to  
a different tune

NATO, what NATO? By now, it has become overwhelmingly obvious that the united Germany will be a member of the western alliance.

This is the good news. The bad news is that the rapidly evolving strategic situation in Europe is facing NATO with a series of fundamental dilemmas, and nobody yet knows whether it can find plausible answers to them.

NATO membership is what the West German Government wants, it is what Prague and Budapest want, and it is now also the declared wish of the new democratic Government in East Berlin. Objections are still coming in from the Russians, but they cannot now hope to block what has become a foregone conclusion.

The Russian proposal of German neutrality only makes sense, alongside its opposite (and apparently lunatic) demand that a united Germany should belong to both alliances, if Moscow's real objective is not so much a specific status for Germany, as the integration of the western alliance as a whole, to match that of the Warsaw Pact.

If Germany is neutralised or paralysed, it means that NATO cannot function as a military alliance, just as important, it means that the European Community would be prevented from exercising the full gamut of powers associated with political integration.

But if this is the Soviet goal, it looks like being disappointed, at least in the short run. NATO will continue to exist as a voluntary alliance of democratic states, and Germany will continue to belong to it even after unification.

The trouble is that this is not the end of the last test, in which the west remains strong and free, and rides off into the sunset.

In the brave new world of perestroika and détente, we do not yet know whether NATO can remain a going concern as a defensive alliance. It was constructed 40 years ago to keep the Russians out, and it has done so; it remains a voluntary association of sovereign states, and most of them will wish to perpetuate the association; but if the enemy has decided to go home, what is there for the alliance to do?

Mr James Baker, US Secretary of State, has proposed broadening all sorts of new political roles for NATO, such as the support of democracy in eastern Europe, or the promotion of east-west trade and investment.

The proposal is well meant, but it meets two objections, both fatal: these are functions which NATO is entirely unqualified to perform, and Mr Baker's transparent purpose is to perpetuate a vehicle for US leadership of the west, which in the eyes of western Europe is no longer as self-evidently desirable as it seemed during the Cold War.

This leads to the heart of the matter. Many factors point towards a reduced US military presence in Europe, by inference they should also point to a larger and more coherent defensive role for western Europe.

The emerging changes in the relationship between the Soviet Union and its east European neighbours are manifest; it would be perverse to suppose

that analogous changes in western Europe could be avoided.

NATO's most basic assumptions are being undermined by events to its east. Two months ago the Soviet Union restated its intention to bring home all its foreign-based troops by 1995-96. Such a move must be the top requirement of European planners, since it would transform the nature of the Soviet threat.

If incorporated in an international arms control agreement and rigorously verified, it would almost eliminate the danger of a lightning conventional attack on Western Europe.

But the Soviet Union will no

**IAN DAVIDSON**  
ON EUROPE

doubt insist, as the corollary of such a departure, on the removal of all or almost all American troops from the central front.

The basis for such a bargain was imprudently laid by President George Bush last year, when he proposed equal ceilings of US and Soviet forces. Some Western governments, like that of Mrs Margaret Thatcher, want to keep substantial numbers of US troops in Europe. But it will be hard to stick to that preference if the price is the continued presence of Soviet troops in eastern Europe, especially in the Eastern half of a united Germany.

Moreover, it is already a racing certainty that nuclear weapons in West Germany will have to be vastly reduced at the insistence of German public opinion. There will be no replacement for the obsolescent, and many other short-range weapons will have to be phased out. But how will the US military feel about that? Already we are beginning to hear pre-echoes of the old slogan: "No Nukes, No Troops".

There is a plausible strategic case for keeping NATO going on a care-and-maintenance basis, as the best insurance against an uncertain future, even with US troops thin on the ground. But the fundamental political question is whether a revamped alliance can stay in business, without a transfer of its political centre of gravity to Europe.

Last month Mr Mark Eyskens, the Belgian Foreign Minister, urged the Community to take up the issue of security policy. Last week Mr Roland Dumas, the French Foreign Minister, proposed that the Twelve should start discussing the first elements of a European defence policy. Even the British Government, in Mr Douglas Hurd, the Foreign Secretary, acknowledges that it will be necessary to re-think the policies, doctrines and structures of NATO.

Whether the European Community is yet ready to take on defence issues may seem debatable. But if the US is to play a smaller role in Europe's defence, Europe must play a bigger role. That means all the European members of the alliance, including France. There is no prospect that France will simply return to the NATO fold, however. Some other process or structure must therefore be found for Europeans to handle their defence issues.

Bulgaria to meet  
with creditor banks

By Stephen Fidler, Euromarkets Correspondent

DEUTSCHE BANK has been asked by Bulgaria's foreign trade bank, which last month suspended repayments of principal on its foreign debt, to form a group of banks to advise on a debt restructuring.

An initial meeting of the group, expected to concentrate on the short and medium-term bank debt maturing in 1990 and 1991, is likely to take place in Frankfurt late this week. Bankers are likely subsequently to visit Sofia.

British, French, Austrian and Japanese banks are among those expected to be represented on the committee.

It is not clear whether the debt restructuring will concern debt or only that of the foreign trade bank, which accounts for about 80 per cent of the debt.

Nonetheless, something less than half of the country's estimated \$10bn in foreign loans is understood to be affected.

Economy slumps  
in E Germany

EAST GERMANY'S economy nosedived in the first quarter of 1990 when trade with the Soviet Union slumped and industrial production tumbled. Reuters reports from East Berlin. The number of jobs rose to 38,513 even though the industrial workforce shrank by 124,000 because of the exodus to West Germany.

Official statistics released yesterday showed that industrial output fell by 4.7 per cent in the first quarter of this year compared with the same period in 1989, and the industrial workforce fell by 4.4 per cent to 2.8m compared with the first three months of 1989. More than 100,000 people have emigrated to the west so far this year and a third of a million did so last year.

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## EUROPEAN NEWS

British Midland angered by rejection of low-cost business service on London-Paris route

## France blocks air fare reduction

By Paul Abrahams

BRITISH MIDLAND, the UK's second largest scheduled airline, yesterday accused France of reducing competition on air routes after being refused permission for a new low-cost business fare between London and Paris.

The Direction Générale de l'Aviation Civile, the French authority which regulates air fares to and from the country, has refused permission for the British independent airline to undercut Air France and British Airways business class fares on the Heathrow-Paris route by 38 per cent.

"The attitude of the French authorities can only be described as obdurate," said Mr Austin Reed, the airline's managing director. "This is the first time that we have run up

against the more restrictive regulations prevalent in countries such as France, Italy and Spain."

British Midland wants to offer a return fare of £149 on its Diamond Class service, compared with a business class fare of £240 offered by the national carriers. It already offers similar rates - which require the passenger to return within three days - on domestic journeys and routes to Dublin and Amsterdam.

The British Civil Aviation Authority has approved the rate, but its French counterpart, which has the right until 1993 to veto fares on routes to and from France, claimed the fare would not allow the airline to make money.

British Midland denied yesterday that the rate was a loss leader. A spokesman pointed out that its operating costs were lower than British Airways' and its overheads far below those of carriers on the Continent.

The company is continuing to negotiate with the French authorities.

The airline also announced that it would start regular flights between London-Heathrow and Paris next month. The route is the busiest in Europe, with more than 2.45m passengers a year. British Midland hopes to capture 15 per cent of the market within 12 months.

It claims that on routes it operates without restrictions, such as Heathrow to Amsterdam, fares have fallen by 20 per cent and passenger vol-

umes increased by 30 per cent. Nine other licences for Continental destinations are held by British Midland. However, Mr Reed warned that the company was increasingly restricted in creating new routes because of congestion at European airports.

"If we do not have the headroom to grow, all the talk about competition and improved customer service will be just that - talk," said Mr Reed.

The company recently put forward proposals to increase Heathrow's capacity by 75,000 take-offs and landings a year. Although Mr Cecil Parkinson, the British Transport Secretary, appeared to rule them out, the airline claims they are being actively considered.

While several western governments have urged Moscow to refrain from violence against the republic, none has publicly come up with detailed offers of help in the event of a blockade.

One reason for this is the difficulty of reaching the Soviet-controlled port of Klaipeda on Lithuania's Baltic coast. There would also be the legal hurdle of exporting to a territory which has not so far gained diplomatic recognition as an independent state from any western country.

President George Bush said this week the US was considering "appropriate responses" if Moscow carried out its threats. Mr James Baker, his Secretary of State, warned the Soviet Union yesterday that failure to resolve the crisis in Lithuania was threatening US-Soviet trade and commercial contacts.

But US officials have been careful to avoid threats that the crisis could affect such key issues as arms control, talks on German unification or the May 30 summit with Mr Gorbachev.

Mr Vytautas Landsbergis, the Lithuanian President, said this week that Scandinavian countries had offered "material support" if Moscow were to cut off vital supplies.

## Lithuania looks for more than words of support from West

WHATEVER rhetorical support Lithuania may be receiving for its independence struggle, the republic is unlikely to receive much practical help from abroad if Moscow carries out its threat to cut off energy supplies.

The threat of a blockade has raised considerable fear in the republic, underlined yesterday by the departure for Norway of Mrs Kazimiera Prunskiene, Lithuania's Prime Minister, who said she would be discussing possible oil purchases.

Lithuanian officials said oil and gas supplies were flowing normally despite earlier reports that deliveries of crude to the big oil refinery of Mazeikiai, north of the capital, Vilnius, would be stopped early yesterday.

The refinery provides all Lithuania's oil, as well as supplying Latvia, Estonia and the Russian region of Kaliningrad. The rest of its output is exported to the West.

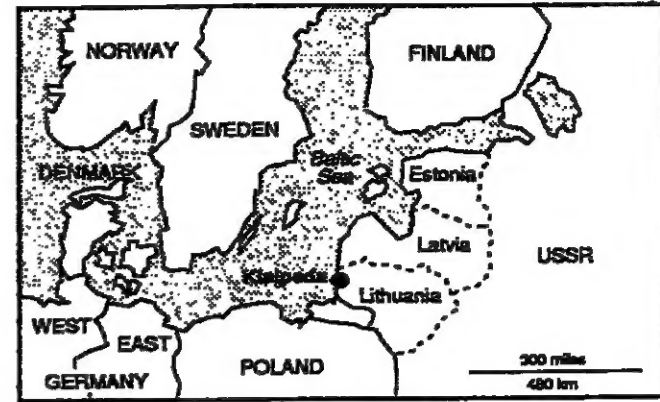
But it is unlikely that Sweden, for one, would be able to provide any tangible economic assistance. The country lacks the natural gas Lithuania would need to replenish its energy needs.

Nor can Finland hope to fill gaps left by a gas boycott. The Finnish Government is even less likely to do anything that would be seen as provocation by Moscow. Finland's own oil and gas needs are met from Soviet sources under the bilateral

agreement plan.

But in Bonn yesterday, the Economics Ministry said it had received no requests for possible help in the event of an energy and economic blockade. In common with energy concerns such as Veba and Ruhrgas, the ministry saw little scope to help in the event of the Soviet Union cutting off gas supplies, because these come in by pipeline.

Within the Soviet Union itself, aid has been promised



## Saudargas says Soviet action may 'strangle us'

By Robert Taylor in Oslo

LITHUANIAN Prime Minister Mrs Kazimiera Prunskiene and her foreign minister Mr Algirdas Saudargas arrived in Oslo last night for a planned two day visit to Norway.

In an interview with the Financial Times on the aeroplane from Stockholm, Mr Saudargas said that they hoped it will be possible to reach an agreement with the Norwegians on supplying his country with oil and gas following the Soviet energy boycott.

He emphasised that the situation in Lithuania remains "unpredictable," adding that the Soviet authorities could "strangle us" economically.

However, he warned that economic sanctions against Lithuania would "disturb the whole region and lead to instabilities. I do not believe that Moscow can risk such an outcome."

Mr Saudargas went on to suggest that a Soviet economic boycott of his country provided the Western nations with an opportunity to make a tangible response in helping Lithuania overcome its difficulties. "There was nothing you could do about the military campaign of intimidation except to console and encourage us with words."

"By using economic means against Lithuania, the Soviet Union's claim that it was an internal matter could no longer be sustained."

Mr Saudargas also asserted that Lithuania would not give up its independence through an economic boycott. "There are Lithuanians who survived Siberian labour camps with nothing. It would be shameful now if we gave up because we could not survive without oil and gas."

The extraordinary course of events over Lithuania is well illustrated by the fact that the Lithuanian delegation flew to Oslo from Vilnius via Moscow and Stockholm. "This is a paradox of our situation," he added.

"The Soviet Union recognises our Government but do not recognise our independence, while the outside world sympathise with our independence cause but do not recognise our Government."

## Pollution may force E German plant closures

By Tim Dickson in Brussels

FACTORIES in East Germany currently polluting the environment may have to be shut down as the price for integrating the country into the European Community.

This stark warning is set out in a confidential paper agreed yesterday by the European Commission on the implications for the Community of German unification.

The text - intended as the basis for discussion by heads of state and government at the special EC summit in Dublin in 10 days time - deals in mostly general terms with some of the main problems which will arise during what it calls the "interim adjustment stage" before formal unification of the two Germanys.

It says that because of the gravity of the situation in East Germany and the urgency of the problem, the environment calls for "most particular attention," that East Germany is one of the last countries still operating a large coal-based chemical industry making heavy use of brown coal; and that a distinction will have to be made between industries where pollution is too high for them to be adapted (and will have to be closed down) and those where anti-pollution equipment could be fitted to bring them closer into line



Former conscientious objector Mr Rainer Eppelmann (right), took command of East Germany's armed forces yesterday, saying disarmament and guarding a new democracy would be his main tasks. Mr Eppelmann was introduced to his new domain by his Communist predecessor, Admiral Theodor Hoffmann (centre), and Gen Vladimir Shkurayev (second left), the Warsaw Pact representative in East Germany's armed forces.

with Community standards. References to closing down are understood to have caused some apprehension yesterday among commissioners and it is thought that this wording may be toned down in the final version.

East and West Germany will eliminate passport controls at their joint border

by this summer, their interior ministers announced yesterday, writes Leslie Collitt in East Berlin.

In a symbolic gesture presaging the unification of Germany, the ministers agreed at a meeting in Bonn that the only border controls would be at the perimeter of the newly-emerging German state.

The two parts of Germany would also work out a joint policy on granting visas, the ministers said. The agreement on eliminating border controls would be made possible by economic and currency union, details of which are to be worked out between the two states by the end of this month.

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## WORLD TRADE NEWS

## German tyre groups plan link

By Andrew Fisher in Frankfurt

CONTINENTAL of West Germany, Europe's second largest tyre producer, yesterday said it was planning a partnership with the East German tyre industry.

The type of co-operation would depend on the results of studies into the state of the market and of production in East Germany.

Managers from Conti and VEB Reifenkombinat Fürstenwalde, the East German tyre concern, will draw up a contract in coming months.

The East German company is the country's only tyre producer, employing 10,500 at five plants. It manufactures around 8.5m tyres a year under the Pneumant name; around 25 per cent of these are exported, nearly half to the West and the rest to Eastern Bloc countries.

Conti said productivity of the Pneumant plants was well below that of western Europe. Mr Horst Urban, Conti's chief executive, said the plants would have to be modernised and rationalised, though he gave no indication of the investment needed or how many jobs would be kept.

Conti said the East German tyre market totalled around DM500m compared with DM4.5bn in West Germany.

## Farm reform gulf yawns as trade talks start

By Peter Montagnon in Puerto Vallarta, Mexico

TRADE ministers from nearly 30 countries began a three-day meeting here last night amid hopes that they would give a much-needed political boost to the flagging Uruguay Round of multilateral trade negotiations.

However, even before the meeting started, it became clear that the US and the European Community had little prospect of closing the gulf between them on the central subject of reforming world farm trade.

After a long meeting with Mr Desmond O'Malley, Ireland's Trade Minister, Mrs Carla Hills, US Trade Representative, said the two sides were still "quite far apart".

Mr O'Malley, whose country holds the presidency of the European Community, declined to comment, but other European officials said the EC faced practical obstacles in developing its position here because only seven of its 12 member states were represented.

An outstanding absentee is Mr Helmut Haussmann, West German Economy Minister, whose decision to give the meeting a miss is seen by some as likely to fuel criticism among members of the General Agreement on Tariffs and Trade that Europe is now too preoccupied with events in the East bloc to give the Uruguay

Round the requisite political attention.

Mr Carlos Salinas de Gortari, Mexico's President, was due at the opening dinner last night to urge the ministers to overcome their differences speedily to allow the Round to conclude successfully on time in December.

One hope is that by meeting now the ministers will succeed in pushing the Uruguay Round higher up the international agenda, possibly with the result that basic political commitments needed to reinvigorate the negotiations could be made at the seven-nation Houston economic summit.

The talks include reform of

trade in textiles as well as agriculture. Slow progress by the industrial countries in these two areas has discouraged the developing world whose commitment to the talks is flagging.

A determined effort is expected to be made at this week's meeting to bring leading developing countries back on board in the Round.

The meeting will also hear a proposal from Canada that the Gatt should be converted into a fully-fledged international organisation, but though several ministers have supported this idea in principle, most say detailed discussion should wait till after the Round is over.



Desmond O'Malley talks with Carla Hills

## Carla Hills insists on naming unfair trading practices

By Peter Montagnon

THE US indicated yesterday it would go ahead with plans to produce a new list of countries guilty of "unfair" trading practices at the end of the month despite fears among its trading partners that this could jeopardise the Uruguay Round of trade talks.

Noting that such a list was called for by April 30 under Section 301 of the 1988 Trade Act, Mrs Carla Hills, US Trade Representative, said: "I don't think anyone suspects that we will not implement our law."

"We intend to implement our trade law in a manner that is entirely consistent with our objectives in the Round."

This approach would follow the example set last year, when the US cited Uruguay Round priorities such as public procurement as the grounds for singling out Japan, Brazil and India as unfair traders, she said.

Her remarks suggested that the Bush Administration is unlikely to exercise the discretion it is allowed under the Act and not name any countries this year in order to help clear the Uruguay Round through its critical final phase.

Though the US makes a distinction between targeting countries and targeting practices, this is largely lost on its trading partners who resent being

asked to negotiate under threat of sanctions.

The European Community, in particular, has been pressing the US to renounce unilateralism in order to facilitate negotiation of a stronger dispute settlement system in the General Agreement on Tariffs and Trade.

Mrs Hills said yesterday, however, that the US could not abandon its unilateral approach before "comprehensive, liberalising rules" were written into the international trading system.

Nor did she accept that the approach that the US had taken towards Japan had been disruptive.

Recent US agreements with Japan on

trade in supercomputers, satellites and on structural economic changes had "led to greater harmony rather than less."

None the less participants at this week's meeting expect it to be overshadowed by concern over US unilateralism in trade, not least because of another deadline facing the Bush Administration today.

It has to decide whether to accept a petition by the US engineering company Allied Signals to take action against Japanese trade barriers in the field of amorphous metals, a product which has special application in conducting electricity.

## Loan provisions bring big loss for Canada's export credit agency

By Bernard Simon in Toronto

BIG provisions for loans to Third World and eastern European countries pushed Canada's official Export Credit Agency into a large loss last year.

The Export Development Corporation said in its annual report that it boosted loan loss provisions by transferring the C\$100m (€52m) balance in its contingency fund, plus C\$100m from retained earnings. These provisions resulted in a net loss of C\$188.8m last year, compared to earnings of C\$4.2m in 1988.

As a result of the extra provisions, allowances for loan losses (excluding non-accrued interest) totalled C\$376m at the end of last year, compared to C\$197m a year earlier.

But in a statement qualifying the EDC's accounts, Mr Kenneth Dye, Canada's auditor-general, said that the allowance for loan losses is "significantly understated." Mr Dye said the provisions applied to loans of only C\$376m out of the EDC's total loan receivables of C\$5.5bn, including C\$4.7bn in sovereign risk loans.

The dispute relates to conflicting opinions on the collectability of troubled sovereign loans.

Non-performing loans of this type, mainly in South America, eastern Europe and north and west Africa, jumped to C\$937m last year, from C\$683m in 1988. In addition, accumulated interest on non-current sovereign loans climbed to C\$450m from C\$289m.

The auditor-general said his analysis indicated that the provisions should be raised by "at least" C\$300m, an amount which would have caused a significant impairment of EDC shareholders equity by turning retained earnings into a deficit of almost half a billion dollars.

The corporation countered that although indefinite delays in principal and interest payments may have to be accepted, the ultimate collectability of a sovereign loan is generally "not subject to question."

Non-performing loans are defined as those on which significant payments have not been received for one year after a rescheduling agreement, or two years where there have been no rescheduling measures.

The agency's export financing business rose by 6 per cent last year to C\$1.5bn, while insurance underwritings and guarantees grew by 10 per cent to C\$4.5bn. But it cautioned that "the inability of a number of developing countries to service further credit at this time has narrowed the number of markets in which Canadian exporters and EDC can job in obtaining new business." With the aim of concentrating its efforts on better-risk markets, the corporation is giving high priority to business in Asia, the Pacific Rim and Europe.

Asia and the Pacific made up almost 40 per cent of the EDC's financing business last year.

## Hughes to build satellites for Brazil

By John Barham in Sao Paulo

THE Brazilian Government has awarded a contract for two communications satellites to Hughes Aircraft of the US, together with a Brazilian partner. The satellite and launch package will cost Brazil \$253m.

The satellites will be launched in 1993 and in 1995 by ArianeSpace, the European launch company.

They will be fully financed by the US Eximbank and Citibank and the US will offset the contract by buying Brazilian goods and services.

Hughes will transfer satellite construction and operating technology and ArianeSpace will transfer rocket technology to Brazil.

Brazil was to have chosen the winner for the contract last year, but postponed the decision five times.

The Government of Mr Jose Sarney finally decided to leave the choice for President Fernando Collor de Mello. The final deadline for choosing between Hughes and its rival, the Franco-Canadian Spar-Matra consortium, was due to expire at the end of this month.

It is understood that the government's indecision arose because of intense pressure from the powerful Globo publishing and television conglomerate to award the contract to Spar-Matra.

A Globo affiliate had a share in the consortium. However, specialists in the government-owned telecommunications agency Telebras had urged the choice of Hughes because it was cheaper and fully met the agency's specifications.

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# US of deal in South Africa strike



A crowd of miners demonstrates at the headquarters of the Chamber of Mines, the organisation of South African mine owners.

...were a baseball cap supporting the Chicago Cubs. "Chicago," he said. "My kind of town." After an hour of tumult, the heavens opened, a rare enough occurrence in a city usually now smothered in drought. But the miners gave up their songs and moved the air.

concession to the 30 per cent wage demand, but produced an improved package on holidays and death benefits. Mr Ramaphosa agreed that the employees had come up with an offer for improved employment conditions.

The Independent, 26th August, 1987.

## DO WE SOMETIMES WISH WE HADN'T FOUGHT TO HAVE BLACK TRADE UNIONS RECOGNISED?

Yes, to be honest, we do quite often.

Because black South Africans have had no voice politically, the unions have quite rightly exercised theirs pretty loudly.

For many years, the government refused to recognise black trade unions at all.

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In 1979, the government gave way. Union rights for black workers were at last conceded.

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the same job, irrespective of race or colour. All can benefit from our free, voluntary share scheme.

In the metal and paper industries, we bargain with unions representing workers of all colours.

In these industries, we have worked with the unions to get rid of the industrial colour bar.

In the metal industry, together with other employers, we operate health, holiday and retirement funds for all workers.

And in 1989, with the National Union of Mineworkers, we helped to create the largest contributory Provident Fund in South African history for the benefit of all black miners.

Conflicts about a fair wage and good working conditions may continue.

But we at Anglo American share a belief:

Whether you're running a company or a country, if the majority have no say in their future, they will naturally feel no responsibility for what happens around them.



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## OVERSEAS NEWS

## Pilot error seen as main cause of Indian air crash

By David Housego in New Delhi

PILOT error was the main cause of the crash of an Indian Airlines Airbus 320 in Bangalore in February in which 32 people died, according to a report by the accident division of the Indian Directorate General of Civil Aviation (DGCA).

The report, submitted to the court of inquiry in Bangalore to establish the reasons of the crash, is likely to have an influential bearing on the outcome of the inquiry. The 60-page report was leaked yesterday to the Indian press. According to these, the crew made two errors in their approach to a visual landing at Bangalore.

The first was that 35 seconds before the crash they ordered a descent to 3,270 ft, or well below the 6,000 ft which is the minimum descent altitude for an approach to Bangalore before final touchdown. The report says that "improper

selection" of altitude resulted in the engine thrust being reduced to idle so that the aircraft could not sustain the required speed and approach.

The second error noted by Mr Sathendra Singh, the Inspector of Accidents of the DGCA, was that the co-pilot failed to disengage his flight director - the aircraft's guidance system - during the final descent.

The report says that if Captain Gopikrishnan, the pilot, had disengaged his flight director when Captain Fernandes, the pilot in command, disengaged his at 21 seconds before the crash, the speed control system would have come into force and engine power started to build up.

Preliminary hearings before the court of inquiry are to be held on April 24. The court under Mr Justice Shivshankar Bhat is expected to issue its findings before May 31.

## Delhi moves towards telecom compromise

By David Housego

THE Indian government yesterday appeared to be edging towards a compromise in the controversy over telecommunications policy.

Mr K P Unnikrishnan, Minister for Communications, backed away from some of his harsher criticism of the Centre for the Development of Telecommunications (C-DOT) headed by Mr Sam Pitroda, which has been developing an indigenous large capacity digital switching system for urban telephone exchanges.

At the same time Mr Pitroda's supporters have let it be known they are now agreeable to Alcatel of France supplying large switches in the 40,000 lines and above capacity which C-DOT has yet to develop for commercial use. Alcatel's E108 switching equipment is already made under licence at Manika-

pur in the north of India.

Mr Unnikrishnan, who does not conceal his antipathy for Mr Pitroda, has none the less been embarrassed by demonstrations by C-DOT staff outside the Prime Minister's residence and by C-DOT employees boycotting a meeting at which he was speaking in Bangalore. His discomfort has reached the point at which there has been speculation he could be displaced in a cabinet reshuffle likely later this week. But he also holds the portfolio of surface transport, which he seems likely to retain.

Last week of support for C-DOT, which has come under fire for delays in developing a large capacity switch, the Minister said that he had always been opposed to entry of multinationals into India and there was no change in his stand.

## Ivory Coast suspends austerity measures

By Mark Huband in Abidjan

IVORY Coast has suspended severe economic austerity measures after public protest and political pressure forced a review of government policy.

The political bureau yesterday decided to scrap extensive wage cuts aimed at cutting spending and an inter-ministerial committee has been set up to review the economic programme agreed with the World Bank and International Monetary Fund in July 1989.

The 18-month programme is aimed at revitalising the Ivory Coast's economy which has been severely hit by falls in world prices for cocoa and coffee its main exports.

Public sector pay cuts of up to 40 per cent were imposed on March 31 for all employees earning more than \$300 per month. The aim was to reduce government spending to fill a \$390m financing gap in the 1990 budget.

The cuts sparked the most serious rioting recently seen in the Ivory Coast.

Pressure from France, Ivory Coast's former colonial power is believed to have led to the review of the measures following discussions last week between government officials and Mr Jacques Pelletier, the French Minister of Co-opera-

tion and Overseas Development.

The inter-ministerial committee is to be chaired by Mr Alassane Ouattara, Governor of the West African Central Bank (CEAO). The committee is expected to examine all aspects of the economic austerity programme.

Last week the first signs of doubt about pay cuts came when employees of the state post and telephone services who were to see salary reductions received their full pay.

Reductions in the cost of food, rents and other prices have been resisted by businesses despite Government attempts to ensure that the cuts are introduced.

The austerity measures caused uproar among Ivory Coast's 97,000-strong public sector workers. The capital, Abidjan, became the scene of running battles between the armed forces and protesters.

Apart from fears of social unrest there has been the difficulty of overcoming vested interests. The old system has proved difficult to uproot, for it was based not simply on the supremacy of a rich elite but on a mutual support system involving political leaders, trade unions and low income people.

Equally debilitating has been the continuing pervasive influence of the state throughout the economy offering an unfriendly environment for successful privatisation.

The government still controls most prices, wages and rents, while the state is the leading client of many small businesses. Public sector enterprises in Tunisia have often failed not because officials initially made poor investment choices, but because the state imposed constraints in terms of pricing and overstaffing and there are fears that this might con-

## S Koreans boost overseas investment

By John Ridding in Seoul

OVERSEAS investment by South Korean companies increased sharply in the first quarter of the year, according to figures released yesterday by the Bank of Korea.

The central bank said that 125 new investments, worth \$383m, had been approved during the period, compared to \$127.66m for the first quarter of 1989.

Korean industry is increasingly seeking overseas production bases as a means of avoiding the threat of protectionism in the European Community and the US, and to gain access to cheaper labour costs in south-east Asian and Latin American countries.

The latter trend has been accelerated by a sharp increase in South Korea's labour costs and an appreciation of the Korean currency over the past three years.

The most favoured location for new investment was North America, which saw 30 projects worth \$164m in total. South-east Asia ranked second with 73 projects, worth \$162m, while western Europe saw seven projects worth \$38m.

There was also a recovery in investment in China which had fallen off sharply after the suppression of the Tiananmen Square protests last June. New investment amounted to \$25.2m much of which resulted from a single investment by Samick, South Korea's largest manufacturer of musical instruments.

More than half of the new investment was in manufacturing projects. Textiles and footwear was the largest single sector, accounting for 23 projects worth \$36m.

Petrochemicals and pre-fabricated metals and machinery also saw marked increases.

The figures also showed a sharp rise in overseas projects by small businesses, which raised their overseas investments by 50 per cent to \$60m.

Analysts said that they expected the increased trend of overseas investment to continue and that a number of new projects in Europe would be announced shortly.

However, they said that several Korean textiles and footwear companies were reconsidering plans to invest in lower cost countries because of concerns over product quality.

## Beirut children killed in bus

By Lara Marlow in Beirut

AT LEAST 15 people including 11 children were burned to death when a school bus crossing from Moslem West Beirut to Christian East Beirut was hit by machine gun fire yesterday and caught fire.

The bus carried Christian teachers who worked for the Al-Marajeh school in West Beirut and their children.

More than 950 people have been killed and at least 3,000 others wounded since Gen. Aoun's forces began fighting the militia on January 30.

For more than two weeks after the conflict started, the bodies of civilians shot by snipers lay rotting in the no man's land between the museum and Lebanon's Palace of Justice. Earlier yesterday four soldiers loyal to Gen. Aoun died in an explosion at the ministry of defence in the East Beirut suburb of Yarz.

The explosion gutted two floors of the building and wounded Capt Antoine Abu Samra, the commander of Gen. Aoun's 1,500-man special strike force. The reason for the explosion was not clear.



WAR CRY: Indian demonstrators shouting anti-Pakistan slogans at a police barricade near the Pakistan embassy in New Delhi yesterday

## IVORY TRADE

### Ban has mixed impact on prices

By William Dullforce in Geneva

THE PRICE of ivory has plummeted in North America, remained stable in Europe and risen in Japan three months after the international ban on ivory trade came into force, IUCN, the World Conservation Union, reported yesterday.

The effect of the ban on the slaughtering of elephants in Africa was difficult to evaluate, Dr Stephen Edwards, co-ordinator of the IUCN's species conservation programme, said.

Poaching appeared to have declined in Zaire, Congo, Gabon and some other countries. In Somalia last month poachers were selling ivory tusks at \$5 a kilo compared with a peak price of around \$100 in 1989.

Retail prices in Japan and Hong Kong had increased by about 12 per cent amid anxiety about the future of the ivory carving industry, according to reports to the IUCN.

Prices for specialty items used in musical instruments had doubled and traders who had stockpiled before the ban came into effect were making large profits.

In contrast, US prices had already fallen by between 40 per cent and 60 per cent before the ban took effect. In Hawaii, the biggest centre for the ivory trade in the US, prices fell by up to 70 per cent in February.

In Europe, Belgian traders reported a marginal decline in prices but demand had remained fairly steady, especially for high quality items, and they were optimistic that prices would improve again.

The disparities in reaction among the three main importing areas are ascribed to differences in culture and attitudes to wildlife conservation. The IUCN suggests it is too early to assess the impact of the ban on the ivory trade and on the killing of African elephants. The decision was taken after an emotional debate last October by more than 100 countries under the Convention on International Trade in Endangered Species (Cites).

Five African states - Botswana, Malawi, South Africa, Zambia and Zimbabwe - have declared reservations about the decision and 10 others are not parties to Cites. The southern African states are establishing a common ivory market with an auction house in Botswana.

Acknowledging that the problem of saving the African elephant, which has dwindled in population from 1.3m in 1976 to just over 600,000, remains unsolved, the IUCN has proposed a new strategy.

This would aim at careful economic management of elephant stocks and would recognise that there is a real conflict between the growing numbers of land-hungry Africans and elephants that require large habitats.

Instead of dealing with the African elephant on a continental scale, programmes would be adjusted to take into account regional differences and give local communities the power to decide over management of their own wildlife resources.

When US senators met President Hani Mubarak of Egypt last week and the conversation turned to Mr Saddam, the Egyptian leader asked: "Why don't you go and talk to him yourselves?" He telephoned Mr Saddam and arranged a meeting on the spot.

The senators, led by Mr Robert Dole, the Republican leader, went off to Iraq for an audience with Mr Saddam at which the Iraqi leader proposed the destruction of non-conventional weapons if all countries of the region, including Israel, agreed.

The episode said a lot about the informal ways of Arab politics, but more importantly it revealed the extent of Egypt's own concern at the danger of Iraq becoming more and more isolated and belligerent.

While the Egyptian official press has been giving full weight to Arab support for Mr Saddam in the face of what is being portrayed as a Western-inspired campaign against him, Egyptian officials are much less enthusiastic.

Egypt hoped that its own re-emergence as the Arab world's pivotal state would encourage a new era of collective Arab moderation, but it now fears that the centre of Arab gravity is unexpectedly shifting towards Baghdad.

Mr Mubarak's own visit to Iraq earlier this month was seen as an attempt by the Egyptians both to show solidarity with Iraq, and, more specifically, to try to calm the situation.

With its treaty obligations to Israel, its heavy dependence on US assistance, and its desire to appear both moderate and moderating, the last thing Cairo wants is for renewed Arab-Israeli conflict. Egypt worries that willy nilly it might become involved.

Egyptians also have fairly recent and very negative experiences of demagoguery under both Presidents Nasser and Sadat. Disturbingly, they are detecting similar tendencies on the part of Iraq's ruler.

They will not have been encouraged by his further all-embracing threats this week, especially since it is a reminder that Egypt, too, has obligations under the Arab Defence Pact that enjoins Arab states to come to each other's defence in the event of external aggression.

But even the most moderate of regional rulers such as Mr Mubarak himself and King Hussein of Jordan recognise that the Iraqi leader's bellicose statements are striking a popular chord in the Arab world at a time when Soviet Jewish emigration to Israel has raised fears of a new outbreak of Israeli hostility.

Many Arabs, although they recognise that Mr Saddam rules by brute force in Iraq, view his defiance of the world and his attempts to dispel with his rhetoric the shameful and prevailing image of Arab weakness.

Scarcely a day passes without the press somewhere in the Arab world editorialising in favour of the Iraqi leader's stand against Israel and the West.

Signs that Arab rulers are reassessing their options in light of changes in Eastern Europe has encouraged renewed speculation that Syria may be prepared to bury its differences with Iraq, and vice versa.

President Hafez al-Assad of Syria this week hinted at the possibility of a reconciliation. If he does indeed sue for peace in his long and bitter struggle for supremacy with his arch rival Mr Saddam, it would probably be represented in the Arab world as something of a victory for the Iraqi ruler.

The Arabs are also talking seriously about the need to convene the first full-scale Arab summit in almost a decade. Mr Saddam could be expected to exploit such a forum to the limit.

In the long run the main weak link in Mr Saddam's armour could be the cost of his ambitions at home rather than abroad, the concern with which he is viewed in Arab capitals. Iraq's present both the economic expense of the country's continued military build-up and the sufferings of the 70,000 Iraqi prisoners languishing in Iran in the absence of a final peace.

## Bombastic Iraq brings pride and fear to Arabs

Victor Mallet analyses Saddam Hussein's ill-concealed ambitions

RESIDENT Saddam Hussein's bold portrayal yesterday of Iraq as the protector of the Arab world has underlined his ill-concealed ambitions for military supremacy and regional leadership, but his latest belligerent comments are not likely to be welcomed by other Arab governments.

At home Mr Saddam has already established a grotesque personality cult, likened himself to Nebuchadnezzar, and traced his ancestry to the Prophet Mohammed.

His recent speeches show that he now sees himself up as the champion of non-aligned states against the superpowers, and as the leader of the Arabs in their long-standing conflicts with the Persians and the Jews.

Yesterday's ringing declaration was more specific than ever. "He who launches an aggression against Iraq or the Arab nation will now find someone to repel him because Iraq is part of the Arab nation," he said in a televised speech.

Iraq, Mr Saddam said, was ready to repel an attack on any Arab country by any aggressor. "If we can strike him with a stone, we will. With a missile, we will, and with all the missiles, bombs and other means at our disposal," he said.

Since the 1988 ceasefire ending the Gulf war, during which the Gulf states supported Baghdad to ensure the containment of the Islamic revolutionaries in Tehran, Arab leaders have eyed Mr Saddam's increasing combat with considerable concern.

Kuwait, rich in oil but small and vulnerable, remains fearful of Iraqi expansionism. Even King Fahd of Saudi Arabia felt moved to sign peace agreements with Mr Saddam a year ago although Saudi Arabia and Iraq were already allies.

Egypt, finally returned to the Arab fold after a decade of being shunned for its peace treaty with Israel, is in a particularly sensitive position as it tries to re-establish its own leading role.

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## Drought-struck Tunisia slow to dismantle ailing state sector

Francis Ghiles, recently in Tunis, explains why fears of more job losses have helped to curtail the country's privatisation programme

DETAILS of Tunisia's privatisation have been slow to emerge despite the size of the country's state sector and the government's avowed determination to sell parts of it off into private hands.

Most officials are highly secretive about a process which started in 1986 with the sale of two hotels and so far has resulted in partial or total sale of 36 state enterprises worth a mere TD89.9m (\$50m).

The reasons are not hard to find. A savage two year drought from 1987 to 1989, the worst plague of locusts in 30 years and floods which last January wrought damage worth an estimated \$250m have already cost thousands of jobs and privatisation will undoubtedly bring many more redundancies. Tunisian leaders are fearful of publicly pushing privatisation plans because they fear job losses might be exploited by Islamic fundamentalist groups and lead to social unrest.

The basic statistics on the sector are straightforward enough. There are 293 enterprises in which the state has a stake. They account for 28 per cent of GDP, 30 per cent of new investment and 66 per cent of all exports.

Their foreign debt of Tunisia Dinars 2.5bn (£1.7bn) at the end of

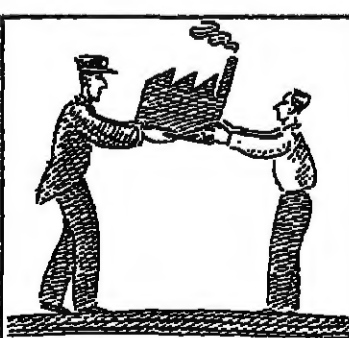
1988 made up 47 per cent of the country's total, while state-controlled companies account for just over a quarter of all formal sector wages, and pay twice the average wage.

The government has vowed to principal to denationalise much of the sector. In hotels and textiles it has made considerable headway but elsewhere it has been slow to act.

Apart from fears of social unrest there has been the difficulty of overcoming vested interests. The old system has proved difficult to uproot, for it was based not simply on the supremacy of a rich elite but on a mutual support system involving political leaders, trade unions and low income people.

Equally debilitating has been the continuing pervasive influence of the state throughout the economy offering an unfriendly environment for successful privatisation.

The government still controls most prices, wages and rents, while the state is the leading client of many small businesses. Public sector enterprises in Tunisia have often failed not because officials initially made poor investment choices, but because the state imposed constraints in terms of pricing and overstaffing and there are fears that this might con-



## UNBUNDLING THE STATE

tinues. Interference in management has often led to directors being selected more for political loyalty than for their expertise. Associated with this is the traditional attitude of Tunisians towards public property, which is referred to as *rich al belag*, a phrase which conveys an attitude of indifference and negligence towards governments' assets, too often used for personal profiteering.

The lessons of the market place have seldom been applied. Since

1986 only one company, the STIA bus assembly plant in Sousse has been liquidated. Its losses had reached TD40m and its debt TD90m. But the government still promised to pay the 2,200 workers until they found new employment.

Over the past four years, the state has sold the 15 hotels owned by its Société Hotelière et Touristique de Tunisie and which in 1984 made a loss of TD37.5m.

Three factors explain why selling the hotels was relatively painless. First, Tunisian and Kuwaiti investors are attracted to investment in real estate. Second the state has wiped the hotels' slate clean of all debt. And finally, this sector has witnessed a continuous boom since the dinar was devalued by 40 per cent in stages from 1986.

In the important textile sector, a big employer and foreign income earner, one company, Sitex has now been successfully privatised.

Overstaffing, poor management and financial deficits which characterised Sitex in 1980 were all corrected, with the help of International Finance Corporation (IFC), the private sector arm of the World Bank, which now holds 10 per cent of the stock.

IFC brought in the Canadian company Dominion Textiles, 10 years

ago, as technical adviser. It now buys all the denim fabric which Sitex ships abroad and increased its stake from 15 to 44 per cent in stages. Employees of Sitex own 15 per cent of the shares which they have bought with a fund set up by IFC while the Tunisian-Saudi consortium bank, Stusid holds a further 30 per cent.

Another change brought in by privatisation at Sitex has been the introduction for the first time in Tunisia, of four working shifts daily, 7 days a week for 330 days a year, instead of the three daily shifts for a five day week which characterises most industries. These changes have led to a 27 per cent increase in output.

The three remaining companies in the large state controlled Sogitex textile group - Tismok, Somotex and Siler - are being sold off, putting all the country's textile industry in private hands.

Despite its success, the Sitex case provoked criticism. The company was sold, as in the case of the hotels, directly to interested parties, and not to the public through the stock market. Critics of the government protested at what they felt was a "secret" sale.

But more recent sales of companies such as Stumetal, which specialises in metal packaging, through the stock exchange, have not satisfied the critics.

Other successful privatisations have included the marble quarries at Thala (for TD100.00) where production has risen sevenfold since 1986, the number of employees has increased threefold and new plant acquired; the wood importer and distributor Tunisie Bois (for TD3.5m), a chain of shops, the Compagnie Staxen (for TD2.7m) and the white goods producer Confort (for TD3.8m).

Not all efforts to sell off state controlled companies have been successful. Last summer's attempt to privatise Sotuver, the bottle maker, was a flop. The company was regarded as overstaffed, had a bad strike record, and its shares were seen as overpriced.

Even after privatisation, Sotuver remained saddled with the rigid rules imposed on most state companies, such as having to buy raw materials once a year through public tender.

Other issues such as concern over the creation of monopolies have been raised in the latest privatisation. Stumetal, which specialises in metal packaging was bought by Mr Salah Mokdad, a Tunisian businessman resident in France, for TD8m.

The shares were split between him and the French company Carnaud, which has long had a stake in Stumetal and acted both as its technical adviser and provider of tin as an input.

Carnaud insisted that if the Tunisian authorities chose another buyer then the company might have to reconsider its continued presence in the country.

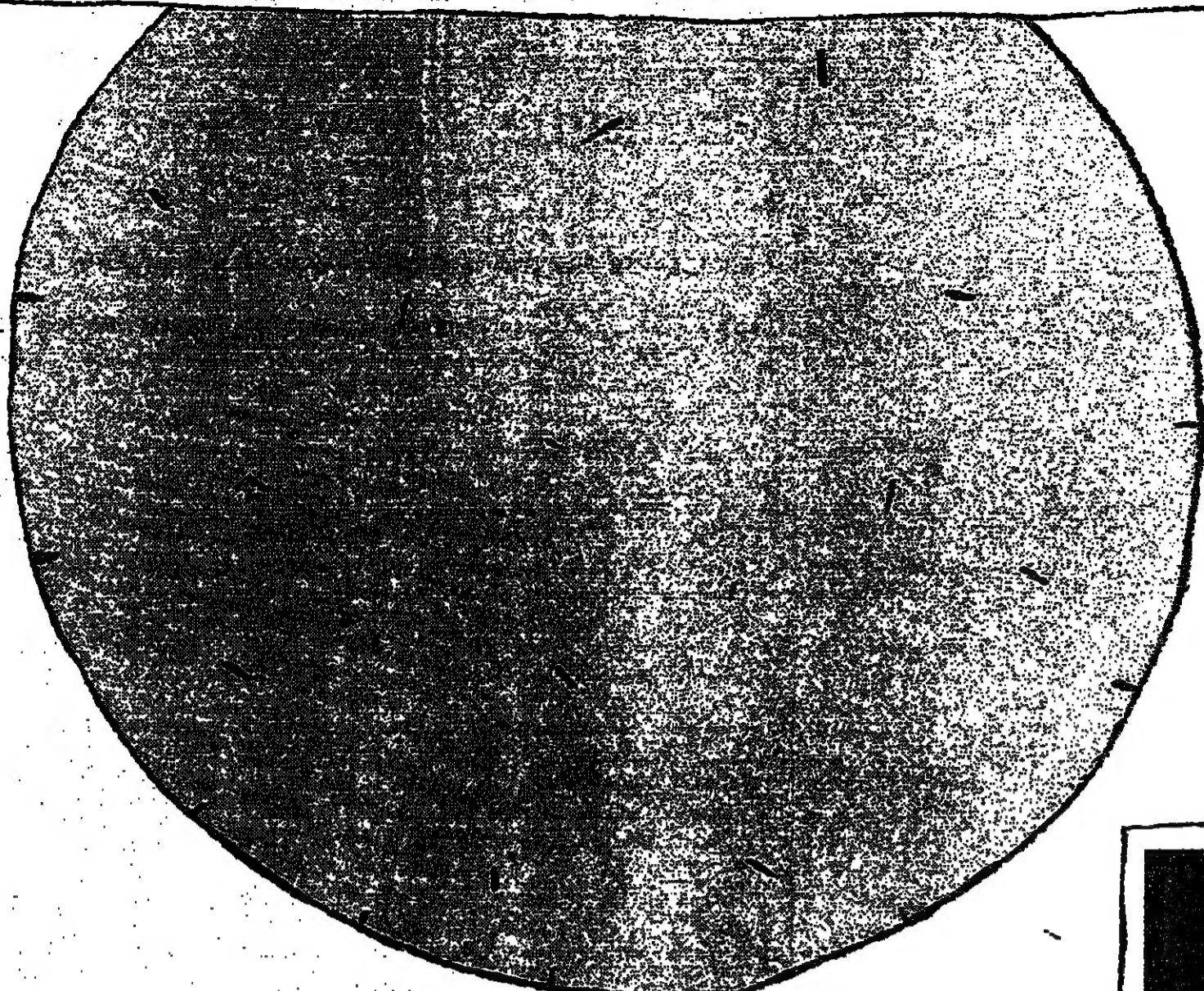
What has worried some Tunisians is that Mr Mokdad has also bought the only other metal packaging company in the country, the well run Entreprise Metallique de Sfax. The absence of any anti-trust laws in Tunisia, and the fact that EMS is the fourth state company Mr Mokdad has recently acquired inevitably raises questions about the risk of creating private monopolies.

The authorities have so far managed to deal behind closed doors. But the programme's success will depend on publicity and accountability.

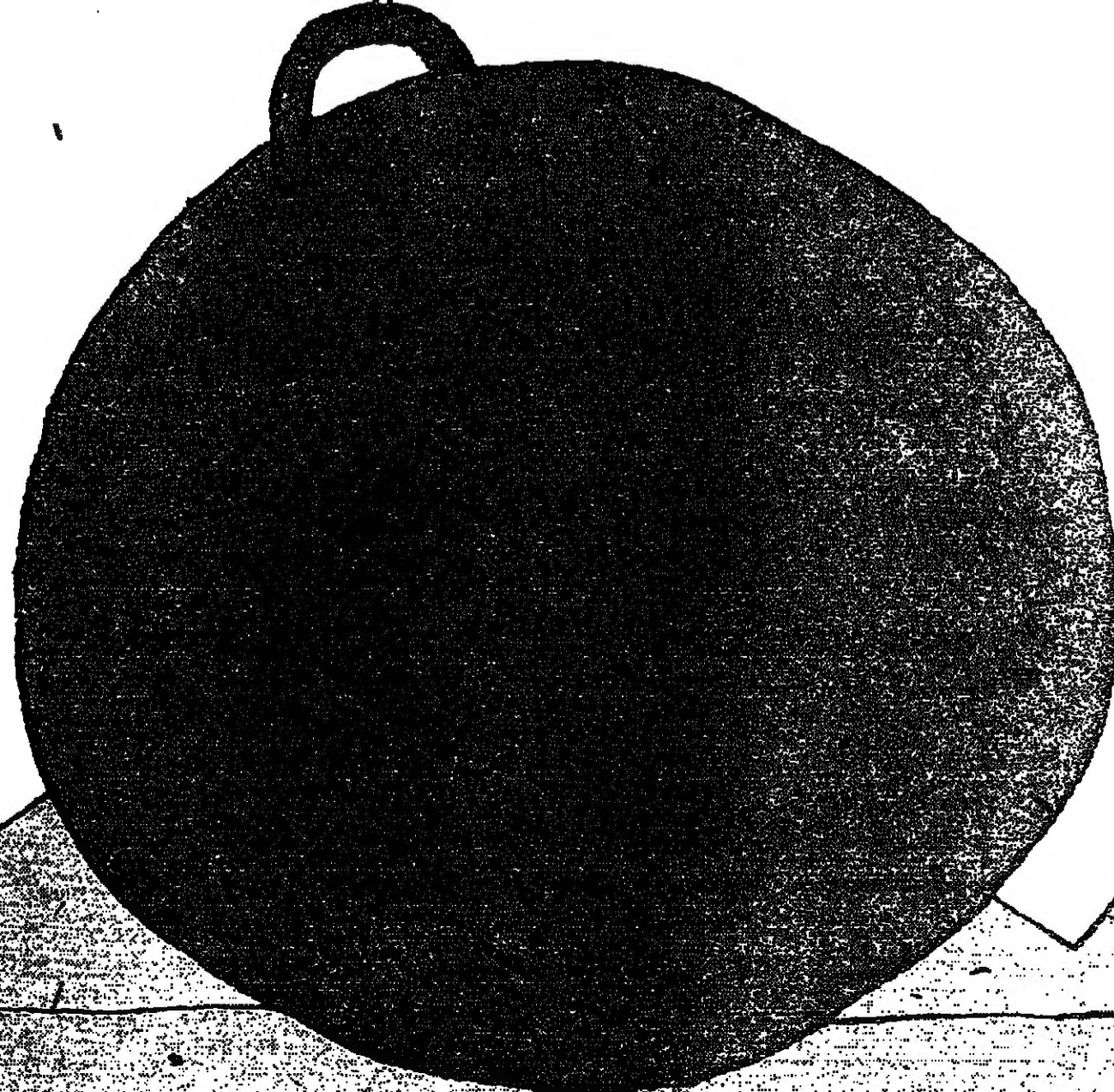
The next group of companies to be privatised, in part or whole, are cement plants, worth an estimated \$300m. For the first time, the Tunisian authorities have asked foreign banks to submit proposals aimed at assessing the worth of an industrial sector, one of considerable interest to European companies.



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## AMERICAN NEWS

## US warns Moscow on trade contacts

By Lionel Barber in Washington

MR James Baker, US Secretary of State, warned the Soviet Union yesterday that failure to resolve the crisis in Lithuania was putting promising US-Soviet trade and commercial contacts at risk.

In testimony to Congress, Mr Baker made clear, however, that such retaliation would be taken reluctantly and would not affect the most important aspects of the US-Soviet relationship such as arms control, talks on German reunification and the May 30 summit with Mr Mikhail Gorbachev, the Soviet President.

Appearing before the House Ways and Means committee, Mr Baker said that Moscow should use "dialogue, not economic boycott or threats to invoke presidential rule" to end the stand-off in the Baltic republic.

Mr Baker used his testimony on Capitol Hill yesterday to flesh out President George Bush's threat to make "appropriate responses" if Moscow carried out its threat to impose an oil and natural gas embargo against Lithuania.

US policy on Moscow was based on seeking "points of

mutual advantage," Mr Baker said. Locking in agreements on conventional and strategic nuclear arms this year was in the interests of the US because it created a "stable, predictable relationship that reduced the risks of nuclear war".

But he cautioned: "Some of our bilateral commercial contacts may be more to their advantage. These contacts are being put at risk. Steps that benefit perestroika in the near future may be affected by Soviet behaviour, even short of force in Lithuania."

Reaction among committee

members was generally favourable. But some members expressed doubt about the Administration's proposals — first floated by President Bush at the Malta summit last December — to reach a bilateral trade pact with Moscow, including the approval of most-favoured nation trade benefits to help perestroika.

Throughout, Mr Baker expressed strong support for Lithuanian self-determination, saying the US had never supported the forcible incorporation of the Baltic states into the Soviet Union in 1940.

## Venezuela to build smelter

By Joe Mann in Caracas

THE Venezuelan Government and a group of Venezuelan and international investors have signed a letter of intent covering the construction of a \$720m aluminium smelter in Venezuela's heavy industry centre at Ciudad Guayana.

As the project stands, partners will be the Swiss-owned Clarendon group, with 35 per cent of equity; the Organisation Diego Cisneros, a big family-owned Venezuelan business group, with 26 per cent; the CVG, a Venezuelan government industrial and mining company, with 15 per cent; and Reynolds Aluminum, with 10 per cent.

The company, to be called Alcan (Aluminios de Angostura), aims to produce 190,000 tonnes per year of primary aluminium for export and will use Reynolds' technology. Start-up is projected for 1992.

The project's promoters said that three international banks have been contracted to arrange financing. This is expected to include a debt equity swap for \$369m, export credits from France and Spain totalling \$234m and \$118m in fresh money to be provided by the partners.

Midland Bank of the UK is expected to handle the swap package.

## Managua's new leader gets taste of crises to come

Tim Coone on the intrigues besetting Chamorro

MR Violeta Barrios de Chamorro, the Nicaraguan president-elect, is stalked by a political crisis before even donning the presidential sash.

If the US-backed Contra rebels which supported her candidature carry out their threat not to demobilise their 12,000-strong army by the deadline of next Wednesday she faces a rebellion from the incumbent Sandinistas.

President Daniel Ortega this week hinted that he might even postpone the transfer of power using constitutional powers available. The Contras, meanwhile, have been trying through military posturing to make radical changes in the structure of the Sandinista-controlled armed forces a condition for their own disarmament. Such an idea is anathema to the Sandinistas. Supported by the constitution, they have wrung an agreement from the incoming government that the command structure of the armed forces will remain intact.

Meanwhile the country hovers between the hope of peace and the threat of chaos. Prolonged power cuts, sudden petrol shortages, sharp price rises and widespread food hoarding

have all added to the sense of instability. The Sandinista-controlled unions, which control the majority of the country's industrial workforce, are threatening a general strike if the demobilisation deadline is not met by the Contras.

As if that were not enough, divisions have emerged within the ranks of the 14-party UNO alliance whose slate Mrs Chamorro headed in the February 25 elections, and she has yet to name her ministers.

At the heart of the intrigue is a three-cornered fight between rival groups within UNO, which range from conservatives to Communists. Mrs Chamorro's team of close advisers, mostly relatives by blood or marriage and headed by Mr Antonio Lacayo (her son-in-law) is the most powerful but most moderate group. It is seeking to reach a *modus vivendi* with the outgoing Sandinistas, who although electorally defeated remain the best organised and most unified political force.

The principal challenge to Mrs Chamorro's advisers comes from the Political Council of UNO, which selected Mrs Chamorro as the candidate and now wants to control her. Divided, however, over state-run company privatisations and control of the armed forces, the council is also split over who should be president of the country's legislature, the National Assembly. Mr Alfredo Cesar, one of Mrs Chamorro's advisers and a former, albeit moderate, Contra leader (he was also a one-time Sandinista and president of the central bank) is Mrs Chamorro's candidate. If he wins, the moderates will run both the executive and the legislative bodies of the state.

Against Mr Cesar, however, Mrs Miriam Arguello, a conservative loosely identified with the private sector organisation Cosep, has been nominated by a majority of the UNO Political Council. The 52 elected UNO deputies to the new National Assembly will now have to choose, but the loser might decide to face a run-off by a vote in the assembly in which the Sandinistas with 39 seats could be the final arbiters. They do not disguise their preference for Mr Cesar.

The Cosep wing in the UNO power struggle is pushing for privatisation of the state sector enterprises. The organisation's president, Mr Gilberto Cuadra, said on Tuesday that "those within UNO that do not support the privatisation platform will have to leave UNO".

Mr Altamirano, the leader of the Nicaraguan Communist party and a member of UNO's Political Council, said, however: "Cosep is against UNO. These people are dreaming if they think they are going to privatise everything." Since the 1979 revolution around 40 per cent of agricultural and industrial production has passed into the state-run sector.

Such fundamental differences within UNO can be easily exploited by the Sandinistas in the National Assembly. That calculation underpins the negotiations over the future of the armed forces. It is an open secret in Managua that the president-elect's advisers have accepted in principle that General Humberto Ortega, President Ortega's brother, would continue as head of the armed forces but be subject to orders from a civilian defence minister, in exchange for Sandinista support for Mr Cesar's candidacy as president of the National Assembly.

Under pressure from the UNO Political Council and the Contras, however, Mrs Chamorro has backtracked on the issue, stating last week that "Gen Ortega will have no place in my government".

At any rate, as her investiture approaches, the well meaning but politically inexperienced Mrs Chamorro has more than enough reasons to believe that the underlying conflicts in Nicaraguan society are still far from being resolved.

## San Francisco hit by series of earthquakes

By Louise Kehoe in San Francisco

A SERIES of strong earthquakes jolted the San Francisco Bay area yesterday morning, on the 64th anniversary of the 1906 earthquake in which large parts of San Francisco were destroyed by fire.

There were no immediate reports of serious damage or injuries but electricity and telephone lines were brought down in the Watsonville area, where the earthquakes are believed to have been centred. The State Office of Emergency Services said the stron-

gest shake measured 5.4 on the Richter scale and hit at 6.53am. The tremors revived memories of the 1906 earthquake, which measured 7.1 on the Richter scale, and caused extensive damage throughout the region, killing 62 people.

Ironically, Wednesday's earthquakes occurred as survivors of the 1906 earthquake gathered at Mission Dolores Park in San Francisco to commemorate the 84th anniversary of Great Quake, which hit at about 5am.

## US embarrassed over global warming issue

THE Bush Administration suffered an embarrassing setback yesterday when foreign delegates to a US-sponsored global warming conference demanded withdrawal of US proposals for more research on climate changes and their economic effects. Renter reports from Washington.

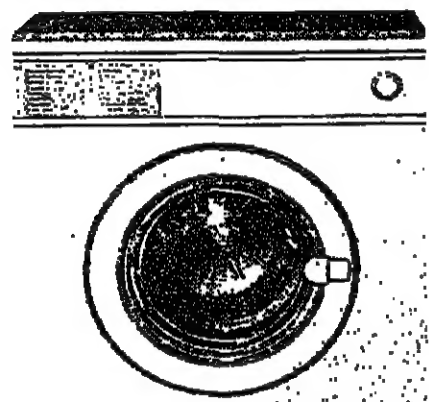
US officials distributed a package of proposed initiatives during conference sessions late on Tuesday and Wednesday, essentially seeking only improved international communication and co-ordination

of scientific and economic research on global climate change.

But one portion of the proposals took the form of a draft resolution offered in the name of all delegations.

The US officials later explained the proposals were simply suggestions, and apologised for the clumsy wording.

"We've disavowed it. It has no status," said William Reilly, administrator of the US Environmental Protection Agency and a conference delegate, speaking of the US proposals.



**This washing machine was made with pre-painted British Steel.**  
**The rest will be here when they're dry.**

From start to finish, it takes about four hours to make a washing machine. Two of which are spent painting the steel — and then waiting for it to dry.

This is frustrating for the manufacturer, to say the least.

Because all the time his machine is in the paintshop, someone else's is in the shop window.

To a lateral thinker, the solution is obvious: get the steelmaker to paint the steel before he delivers it.

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Because the painted finish now has to survive the entire manufacturing process — and still look as if it hasn't been anywhere near it.

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We already had a pre-painted steel, developed to save time in the construction industry.

We knew it was resilient, and resistant to extremes of weather. (You'll find Colorcoat® cladding on buildings all over Europe, America, Asia and Africa.)

Could it now stand the high-speed piercing, pressing and 180 degree bending which go into making a washing machine?

With help from a leading British paint supplier, we soon had the answer. The results were spectacular.

Down-time went down. Manufacturing costs went down (by 14 per cent in some cases). And sales of Colorcoat went up and up.

Partly due to white goods. And partly due to brown goods: TV's,

videos, hi-fi units and microwaves. (Not to mention car components, office furniture, scientific equipment and satellite dishes.)

In fact, Colorcoat in all its forms has been so successful that production is currently well over 2,000 per cent up on its first year level.

That isn't really the point of the story, though.

It is our strategy to take problems out of our customers' factories, whenever we can, and solve them ourselves.

Either in our laboratories, or our steelworks (or both).

To build the answer into the steel itself. And then build new markets with the resulting product.

Colorcoat is a striking example of the principle. But it's far from being the only one.

We've developed stronger steels for lighter cars — and lower fuel consumption. Sound-deadened steels to improve working conditions for machine operators. Non-slip steel plate for safer walkways in factories and on oil-rigs.

And recyclable steel cans for the drinks industry (and the environment).

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Success lies in solving problems fast.

And, like the washing machine above, getting there first.

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AT BRITISH STEEL.



\*Colorcoat is a Registered Trade Mark of British Steel.

## Argentina seeks to curtail strikes in essential services

ARGENTINA is preparing to curtail strikes severely in what are deemed "essential services", writes Gary Mead in Buenos Aires.

The measures, which will require congressional approval, are likely to face stiff opposition from unions. Public sector unions have carried out almost 2,400 strikes in the last five years.

The proposed legislation will require unions to give advanced warning of strikes. These will be legal only after conciliation processes have been exhausted and will require a secret ballot of union members. At the moment, strikes are called by union leadership without ballots.

The Government has also said that almost 80,000 state employed workers will be pensioned off at the end of April, in line with a decree aimed at cutting state spending. Officially, some 3m people are employed by the state. However, April's redundancies are widely regarded as insufficient.

## US court win for unions on replacing strikers

By Roderick Oram in New York

US UNIONS have won a victory in the Supreme Court against companies that hire replacement workers during a strike as a way of breaking organised labour.

The court ruled that the companies cannot assume that the new workers are opposed to the union, therefore the employers must continue to recognise the unions and negotiate with them.

The ruling leaves intact employers' right to hire permanent replacements when staff strike. Use of the tactic has become common since President Reagan replaced striking air traffic controllers.

The ruling will not affect the dispute involving 6,300 striking drivers at Greyhound, the long-distance bus company. After only six weeks of an increasingly bitter dispute marked by shooting at buses, the company has already hired 2,300 new drivers. However, the company has said that it assumed the new employees would be represented by the Amalgamated Transit Union once the strike of present ATU

members was settled. The court ruling stems from a change in policy by the National Labour Relations Board. Formerly, it had accepted employers' argument that new employees were anti-union. Often they outnumbered the striking members, allowing the company to refuse to deal with the union.

The board reversed its position three years ago, saying it would evaluate each strike on a case-by-case basis. Several lower federal courts had rejected the board's new policy leading to a hearing by the Supreme Court on a Texas strike involving 22 workers. The employer was Curtin Matheson Scientific, a subsidiary of Fisons of the UK. The Supreme Court upheld the board by a vote of five to four.

Employers now have to prove that the new workers do not want to be represented by the striking union. But the board's regulations will make it hard for employers to do that until they can prove the union is supported by less than half of all employees.



## UK NEWS

Power workers add to gloom with pay demand

## Signs of slowdown fail to stem fears over inflation

By Peter Norman and Andrew Marshall

**INFLATIONARY** pressures have continued to build up in the British economy despite official figures yesterday which pointed to a decline in retail demand and industrial production.

The Government reported yesterday that the annual rate of increase of unit labour costs in manufacturing industry jumped to an unexpectedly high 6.8 per cent in the three months to February from 6.3 per cent in the three months to January.

At the same time, it said the provisional index of weekly retail sales volumes fell by a seasonally adjusted 1.4 per cent in March. Other figures showed overall industrial production declined by 0.7 per cent in February while manufacturing output fell 0.5 per cent in that month.

The falls in retail sales and industrial output were sharper than expected, suggesting that the Government's high interest rate policy might be successfully slowing the economy. But for City of London analysts, this positive news was offset by further signs that the slowdown had so far failed to curb inflationary pressures on the labour market.

Mr George Hodgson, UK equity strategist at Warburg Securities, said the unit labour cost figures were "distinctly disconcerting". Mr Peter Spencer, UK economist at Shearson Lehman Hutton in London, said it was "disappointing" that output was not rising to meet export demand.

The higher unit labour costs reflected worsening productivity as well as falling output. Manufacturing output per head in the three months to February was about 0.3 per cent lower than in the three months ended November. Over the same period, the annual growth of manufacturing productivity halved to 1.2 per cent from 2.5 per cent.

Adding to the gloom in the City about wage costs and output, workers in the power industry yesterday voted in favour of taking industrial action, including a strike, after rejecting an 8.5 per cent pay offer.

The EETPU electricians' union, with 40,000 members, voted by 23,599 to 1,649 to reject the offer in the highest return the union has ever had for an industrial action ballot. The vote in favour of a strike

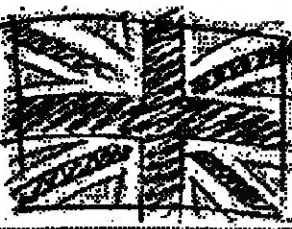
was 12,771 to 8,184. For action short of a strike, the figures were 21,360 to 1,942.

The three other electricity supply industry unions are expected to announce a similar result tomorrow. The EETPU is traditionally the most moderate of the four, and last year was alone in voting against taking strike action over pay.

The power workers are keen to achieve a double figure settlement. Mr Danny Carrigan, EETPU national organiser, said that on the eve of privatisation, "this members' contribution to the well-being of the industry should be rewarded". They expected no less than workers in other profitable industries, he said, citing Ford's 10.2 per cent deal.

Yesterday's UK data had only a modest impact on financial markets. The pound closed unchanged on the Bank of England's trade weighted index at 88.7. But the inflationary implications of yesterday's news contributed to a negative tone among British equities with the FTSE 100 index closing at 2,205.9, down 8.8. Lex, Page 24

## BRITAIN IN BRIEF



## Labour to support G7 meetings

Mr John Smith, Shadow Chancellor of the Exchequer, yesterday declared that he is an enthusiastic supporter of the Group of Seven meetings which co-ordinate exchange rates and macroeconomic policies among the major industrialised countries.

Speaking in Washington, where he is introducing the new pro-European, pragmatic Labour party to top Bush administration officials, Mr Smith said a future Labour government would seek to strengthen the G7 process.



Smith: courting America

Mr Smith said Labour had learned lessons from the failure of the French socialist government's nationalisation policies in the early 1980s.

"Economic policy totally determined by national considerations will not succeed," he told reporters.

In recent months, some observers have raised questions about the effectiveness of the G7 process which grew out of international efforts to manage a decline in the value of the dollar in 1985.

Mr Smith's remarks on the importance of G7 contrast with Labour's flirtation 15

years ago with a siege economy to protect British industry, but they also fit with his image of a Chancellor-in-waiting, ready to take his seat along with the other finance ministers of the world.

Mr Smith's schedule in Washington suggests that the Bush administration sees Labour, which has a 20 point lead in the polls, as a serious alternative to Mrs Thatcher's Conservative government.

## Teachers vote for strikes

THE second largest teaching union yesterday voted to authorise further strikes over teachers' pay and workloads, but defeated an attempt to force the union's leaders to ballot members on a 35-hour week work rule.

The annual conference of the National Association of Schoolmasters/Union of Women Teachers voted to allow the union's executive to choose the timing of a strike ballot to improve pay levels and limit teachers' workloads.

The union's leaders said on Tuesday that they were unlikely to call a second one-day strike over pay - following one last month - at least until the end of this year, when talks on pay are likely to restart.

Delegates at the conference in Scarborough rejected an amendment which would have made the union refuse to take part in developing the national curriculum until the Government started negotiations on teachers' conditions.

## Managers' pay rise

Managers' pay will increase by at least 5.1 per cent on average over the next 12 months, predicts the latest survey by the Reward pay consultancy, published today.

The survey is based on data from over 1,000 companies in a wide range of industries throughout Britain.

The increase over the past 12 months was 11.8 per cent to an average salary for all ranks of managers of £15,518. Total money pay, including incentive bonuses and so on, rose by 13.4 per cent to £15,590.

Reward says that although the rate of increase is now evidently slowing, the forecast

9.1 per cent over the coming 12 months may well be exceeded. "Experience suggests that this figure is slightly understated and is to some extent an expression of desire rather than likely out-turn."

## Assurance in Spain

SCOTTISH Widows' Fund and Life Assurance Society is to start marketing life assurance in Spain in its first expansion outside the UK.

Scotland's oldest life company, founded in 1815, has announced a joint venture with Previsasa SA de Seguros y Reaseguros to form a new life company Previsasa Vida, in which Scottish Widows will have a 40 per cent stake.

Previsasa is a private company in the health insurance sector. Other UK life companies which have started operations in Spain include Royal Life and Friends Provident.

## Anglo-Irish tension

TENSION between Britain and Ireland about the extradition of terrorist suspects is likely to be a main focus of meetings between ministers from the two countries today and tomorrow.

Irish extradition laws are expected to be high on the agenda when Mr Peter Brooke, Northern Ireland secretary, meets Mr Gerry Collins, Irish foreign affairs minister in London at today's meeting of the Anglo-Irish conference.

Britain's concern follows recent judgements made by the Irish Supreme Court in the cases of three men wanted in Northern Ireland on terrorist related charges.

Most recently the court ruled against the extradition of Mr Owen Carron, wanted in Northern Ireland on firearms charges, because of the view that his alleged offence was political.

In Belfast yesterday Mr Brooke said the decisions "could have given some people the impression that there was a safe haven for terrorists in the republic."

Extradition procedures may also be raised at a meeting Mr Haughey will have with Mrs Thatcher in London tomorrow. But both British and Irish officials stressed that Mr Haughey's visit will be in his capacity as president

of the European Council and that discussions will focus mainly on preparations for an EC summit on German unification in Dublin later this month.

## More slots at Heathrow

THE number of hourly take-off and landing slots at Heathrow is to be increased in a bid to ease delays for passengers.

The Civil Aviation Authority said it was approving a rise from 72 to 74 aircraft movements - each made up of one take-off and landing - as "a small step in the right direction" for Britain's busiest airport.

Average delays at Heathrow airport in March this year fell to 17 minutes, four minutes less than the same month last year, according to BAA, formerly the British Airports Authority.

## Howe attacks EC states

THE extent to which European Community member states use their public purchasing programmes to support their own national industries was attacked as

a scandal yesterday by Sir Geoffrey Howe, the Leader of the Commons.

He supported attempts by the European Commission to liberalise public purchasing in the EC and said that this would lead to a revival of markets, increased efficiency, more choice and greater value for money.

But he also warned that British manufacturing had to be given a higher priority if it were to meet the challenges of the more open markets that would follow such liberalisation.

Sir Geoffrey said state purchasing totalled about 15 per cent of EC gross domestic product.

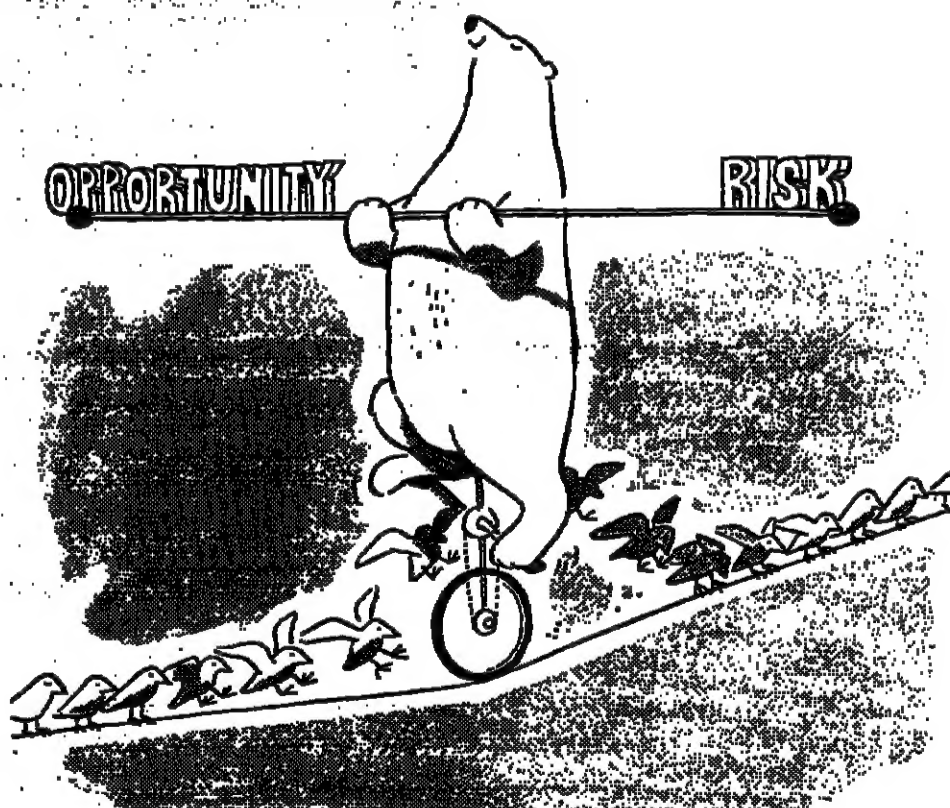
## Days numbered for sales reps

THE DAYS of the "sales rep," who lugs wares from shop to shop, vying with competitors for an extra inch of shelfspace, are numbered.

In the past five years, the number of field representatives from manufacturing companies supplying the UK grocery trade has fallen by an estimated 30 per cent according to a survey by OGC Strategy Consultants. It forecasts a further decline, of up to 34 per cent, by 1995.



While Labour was getting its message across in the US, John Cunningham, their local election co-ordinator, mislaid his message in London. Despite phone calls, a poster to launch the campaign failed to appear at a press conference. The anti-Conservative poster should read "Con"



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by Keiichi Tahara.

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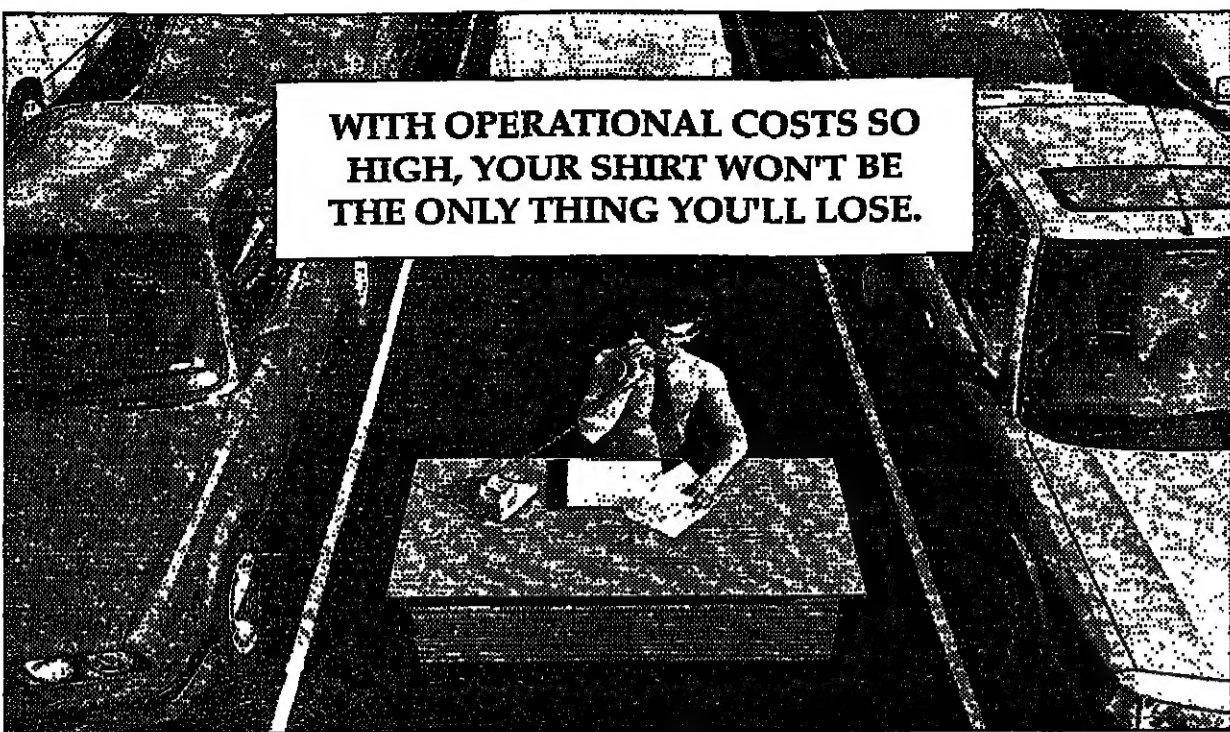


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## UK NEWS

Car maker to prepare distribution 'air bridges' for post-1992

# BMW restructures parts division

By John Griffiths

WEST GERMAN car maker BMW is to restructure its parts distribution activities throughout Europe in preparation for the single EC market post-1992.

One immediate effect of the reorganisation is that its wholly-owned UK subsidiary, BMW (GB), is abandoning a £24.8m plan for a new headquarters and warehouse complex near Swindon, Wiltshire, only a week after winning a nearly two-year battle for planning permission to build it.

Under the new system, which is to start on a pilot basis later this year, parts distribution mechanisms which have been based almost entirely on national markets will virtually disappear.

In their place will be a network of strategically-placed warehouses, some to be newly developed, throughout Europe which will be supplied much

more frequently than currently by BMW's main parts centre at Dingolfing, near Munich.

While most distribution will be by - as now - by truck, it is planned to use regular "air bridges" to fly parts from Dingolfing to centres where parts are urgently needed.

The "just-in-time" delivery concepts involved, to be made possible by new computer systems to be introduced throughout BMW's distribution infrastructure, will allow warehouses to be resupplied on a daily order basis instead of weekly.

The new structure, scheduled to be fully operative by the end of next year, should allow the warehouse network to operate with much reduced inventories.

It is this consideration which lies behind the BMW (GB) decision not to proceed with the

£2-acre Swindon venture. Its current, 230,000 cubic metre warehouse at the existing 12-acre Bracknell, Berkshire, headquarters should now be adequate for the foreseeable future, according to BMW (GB)'s managing director, Mr Paul Layzell.

The Swindon site would have provided BMW (GB) with the greatly-expanded warehousing it had felt to be necessary when the search for a larger site than Bracknell was begun nearly three years ago.

This perceived need was based on the great expansion of BMW's UK sales in the past decade. From 13,500 units in 1980, its sales have risen consistently to reach 44,506 in 1989 and are likely to exceed 50,000 units for the first time this year. The population of BMWs on UK roads is now approaching the 300,000 mark.

Mr Layzell indicated that the European strategy review had been running in parallel with the long drawn out planning battle in the UK, and that the Swindon project had simply been overtaken by events. "Nowadays, even three months is a long time in the car industry," he declared.

Key warehouse locations on the Continent will include Strasbourg, Frankfurt, Hannover, Bonn, Belgium, Verona and Madrid.

As part of the overall strategy, agreement has also been reached with the Bracknell staff on a switch from single to two-shift working, between 6am and 10pm. According to BMW executives, this will allow 70 per cent of parts ordered by dealers up to 5pm on one day to be received at the dealership by 9am the next day, and 100 per cent by noon.

## Choppy waters at Docklands

Hazel Duffy on the dilemma facing urban development corporations



LONDON Docklands, the vast commercial and residential development down river from the capital's historic core, is at an uneasy stage of its short life.

A depressed property market, high interest rates and transport uncertainties have contributed to the difficulties that the Government's development corporation is experiencing in pulling off deals in the Royal Dock area of the Docklands.

High interest rates have hit Docklands hard. The area has always involved an big element of risk, although the Government, determined to make Docklands work, is putting a lot of strain on the Treasury in trying to rectify its chronic transport problems, and thereby reduce the risk.

The Royal Docks is huge, bigger even than the Isle of Dogs, pictured above, where Canary Wharf is under construction. The light railway is being extended and access roads widened and improved. But public inquiries, affecting the marketability of the London Dockland Development Corporation sites, are due into the future of London City airport and the East London River Crossing.

The management of the LDDC is said by developers to be in a parlous state, a criticism which has also been levelled at the newer urban development corporations scattered around the country.

Much of the money now being spent in the new UDCs comes from the public purse. Two thirds of the £563m allocated to UDCs in 1980/81 is for London Docklands, £256m higher than planned a year earlier.

Costs have risen with increased spending on infrastructure in an attempt to make UDC areas more attractive to developers. Land sales are slow, so the income is nearly all from public grant.

In London Docklands, the Government is going ahead with the estimated £1bn extension to the Jubilee line, in spite of its failure to convince the main developers to make a significant contribution.

The line will have the capacity to carry 22,000 passengers an hour. But many experts think that the cross-London rail link from Paddington to Liverpool Street should have

taken priority.

The effect of developer caution in the newer UDCs could have serious political repercussions. They are the Government's main weapon in its fight to win back the inner cities, and also epitomise the public/private sector partnership ideal which Conservative ministers have to admit on their educational visits to the United States.

The most recently proclaimed UDCs have come up against the property downturn just as they were getting themselves organised, while many big property developments under construction had been agreed before the individual UDC was set up.

London Docklands enthusiasts are more likely to be found among foreign-owned developers who seem to take a longer term view of Docklands than the British.

The LDDC says interest has been shown in the Royal Docks site, where it wants to persuade Stanhope Properties into concluding the deal which has been under negotiation since mid-1988. But it admits that this is not the time to start initiating new deals.

The differences, here, and in the Royals site which it proposes to sell off in parcels, is over land price. The LDDC thinks that these are the best sites in the London area, and wants a price which reflects its belief. The potential developers carry on playing their waiting game.

Typically, the downturn in the market has had a positive spin-off. The early Docklands developments disregarded the needs of local residents. Much has now changed. High priced houses are not selling but local authority housing is being improved and Docklands residents are buying the more affordable "social" housing. Education, training and health centres are being part funded by the LDDC.

The other UDCs have learned from London Docklands' social ignorance. What they lack, however, is the swashbuckling approach to development which, many say, was needed to get London Docklands launched. Otherwise the prospect of significant developments in most UDCs before the next election look slight.

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## Manx court told of 'cosy relationship' of SIB investigators

By Sue Stuart

THE COSTLY relationship between the parties investigating the collapse of the Savings and Investment Bank resulted in defendants being deprived of protection against self-incrimination, it was suggested in a Isle of Man court yesterday.

Seven former directors, officials and agents of the bank, which collapsed on the island in 1982 with £42m debts, face charges including fraud and false accounting. Mr Victor Gray, an eighth defendant, has had his trial adjourned for health reasons and all the defence counsels are arguing to have the trial stopped for reasons of delay in bringing prosecution.

Mr Philip Hackett, for defendant Mr Michael Crowe, the bank's former auditor, told the court that Mr Michael Jordan of Cork Gully, one of the court-appointed inspectors examining the bank's collapse, and also one of the liquidators, had told a judge in December 1983 of problems they were incurring in the inspection.

In particular, Mr Jordan had said the liquidators were unable to instigate litigation against various parties because they would not then come forward to give information to the inspectors. With reference to the auditors, Mr Jordan told the judge that the inspectors hoped to see them within the following three weeks, after which litigation would begin, said Mr Hackett.

In January 1984, the auditors were interviewed by the inspectors and within four

weeks were notified of action being taken against them by the liquidators based on information given at the inspectors' interview, claimed Mr Hackett.

Mr Hackett said it was clear from documents that he saw that Mr John Chadwick, QC, who led the inspection, nor the judge, wanted or expected this flow of information to occur, but "it presumably came about because of the very cosy relationship between the parties involved."

Mr Jordan and Mr Timothy Beer of Peat Marwick McGintock were both joint liquidators and inspectors.

Mr Rodney Klevan, QC, for defendant Mr Norman Ashton Hill, argued the delays in bringing prosecution had caused prejudice to defendants.

Mr William Cain, QC, the Isle of Man Attorney General, should not have been involved with the inspection, as it was a civil matter, said Mr John Rogers, QC.

Mr Rogers said the inspection had quite correctly been initiated by the Treasurer, and the report was being prepared for the court, not for the Attorney General.

Mr Rogers said that, as a result of Mr Cain's ignoring the contents of the interim report and the letter, the prosecution was not begun until four years later.

"The final submission from defence counsels will be heard this morning, and the judge is expected to rule next Wednesday on whether or not there will be a trial."

## Inquiry set to give press last chance for self-regulation

By Raymond Snoddy

THE UK Government's inquiry into the press and privacy of the individual is expected to recommend that self regulation of the press should be given a last chance.

The committee under the chairmanship of Mr David Calcutt QC, which is due to report to the Government "next month, is likely to come out against a new law of privacy to protect individual citizens from press intrusion.

Instead, the committee, membership of which includes senior lawyers and journalists, will call for the reforming and restructuring of the Press Council, the newspaper industry's voluntary standards and complaints body.

Mr Calcutt believes the council should be made completely independent of the newspaper industry. The industry finances the Press Council, and 18 of its members are representatives of the newspaper industry. A further 18 representatives of the public are appointed by the Independent Appointments Commission.

The final member is the chairman, Mr Louis Blom-Cooper. The Calcutt committee does not believe, however, that the Press Council should be turned into a statutory body.

The committee, set up by Mr Home Secretary, the former Lord Hailsham, in July to head off demands for legislation against the press on the floor of the House of Commons, has not finished its work and a further four or five meetings have to be held.

Its current thinking, contained in draft recommendations, comes out against immediate legislation which would be widely seen as a curb on press freedom.

The committee's view is likely to cause dismay among politicians. Last year there was widespread support for private members' bills advocating a right of privacy and a right of reply for members of the public who believed they had been unfairly treated by newspapers.

Since the setting up of the Calcutt committee editors of national newspapers have signed a code of practice on standards and almost all have appointed ombudsmen or readers' representatives.

There has, however, been recent controversy over the Sunday Sport, a sensationalist newspaper which has not signed the code of practice. Journalists from the paper entered the hospital room of Mr Gordon Kaye, the 'Allo 'Allo actor, when he was recovering from brain surgery, took photographs and tried to interview him.

The Appeal Court decided last month that, however gross the invasion of privacy, there was nothing in English law to prevent publication.

The Calcutt committee, it is believed, decided after debate that it would be wrong to base a general law on such an exceptional case.

Mr Calcutt was not available for comment last night.

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## BUSINESS LAW

## Shareholders on the swings and roundabouts during takeovers

By Derek Wheatley, QC

DIRECTORS who manage the affairs of a company have a duty to act in its interests. Owned as it is, by its shareholders, this amounts to a duty to act in the interests of the whole body of the shareholders.

Mindful of this duty, as they must always be, do directors always succeed in fulfilling it in a takeover situation?

We see many examples of unwelcome, or contested, takeover bids. They all involve heavy expenditure of shareholders' funds.

Not all succeed. Not all of those which do necessarily have a beneficial result for the shareholders of both or even of either of the companies concerned.

The shareholders of the target company receive a bewildering succession of circulars urging them, on the one hand, to accept, or, on the other hand, to reject the offer made by the predator company for their shares in its target.

Often the gist of the attack is on the performance and profit record of the target which in turn resists, just as frequently, with a counter-attack on the past record of the profitability and management of the predator.

The profit forecasts published by the target may now seem somewhat rosier than those of previous years.

They are likely to include revaluations of the assets, including in particular the property portfolio.

Inevitably it will be suggested that the price offered is too low, or that long-term planning by the board is about to be crowned by success.

Shareholders must often be confused when they realise that both versions of the affairs of their company cannot be correct.

The cynical will believe that neither version can be wholly trusted since both are coloured by the desire to press home, or to fend off the attack.

Recently, as a shareholder, I was the reluctant recipient of a large number of expensively-produced glossy circulars in relation to the unwelcome bid by Kingfisher for Dixons, both large retailers of electrical goods.

The bid has now been referred to the Monopolies and Mergers Commission and so it has lapsed for the moment until May when the decision by the MMC is expected to be made known.

The Kingfisher circular of January 14, before the intervention of the MMC, has as its title "The Fall and Fall of Dixons."

It extols the virtues of the management of its own electrical retailing subsidiary, Comet, and "its record of success," it

denigrates that of Dixons under the headings "Dixons' record of failure," "Dixons and Currys: a management disaster" and "Worse still to come."

It finally expresses the pious sentiment "Kingfisher's offer - the only hope for Dixons." Earlier circulars on both sides were in similarly forthright terms.

Not referring to the Kingfisher/Dixons situation, in which as a shareholder I have an interest, I wonder whether such considerable expenditure is always in the interests of the shareholders of target and predator.

It must be difficult for the boards of both to be uninfluenced by their personal situations. These include the possible loss of the jobs of the directors of the target, and the loss of face for the directors of the predator company in the event of failure.

If the bid fails the predator will have spent much of its shareholders' money for nothing.

This will have been the cost of the employment of merchant bankers, stockbrokers, City solicitors, and accountants, as well as the loss of time of the in-house team, printing, postage and advertising in the press.

The justification for a takeover has to be the greater profitability which will result for the shareholders of the new, merged company.

It may not be easy to see that this is always likely but it would be rarely possible to prove that it could not happen.

The shareholders themselves are in no position to form a good judgment as to which of the rival sets of claims they are to believe, or - even if one set of claims is entirely true - that the future will turn out in accordance with the predictions made.

Even if they feel that their company is taking the wrong course their only effective remedy would be to vote the directors off the board, which would almost certainly be a practical impossibility within the time available.

The law itself is little help to the target company in the vast majority of cases, although it does provide protection against slander of goods.

It may be actionable to disparage the quality of a rival's goods and thereby prevent their sale if done "falsely and maliciously."

In practice, litigation would be unlikely to provide a remedy, however intemperate the language used. It all takes too long. There would be too many conflicts of fact to be resolved.

Once the merger has been effected the disgruntled target company would be controlled

by the successful predator and the legal entity which might, in some circumstances, have been the plaintiff in an action would for practical purposes no longer exist.

Even if the bid fails so that a plaintiff able to sue remains, research has failed to reveal any case where the target of an unsuccessful bid has recovered damages from the predator for loss of business as a result of unfounded criticism of its management and methods.

Nor is there any case where damages have been awarded for the costs of the successful defence since, provided the Takeover Code is complied with, any public company can bid for the shares of any other.

Shareholders are wondering, more and more, whether the use made of their money in this situation can be justified.

As they ponder the ethics and seaminess of robust, hostile takeover attempts, great battles of the recent past must spring to mind - Lorrho for Harrods, Trust House Forte for the Savoy and other examples.

The directors of all these companies were in no doubt acting with the greatest integrity.

But were they always right? History may be able to decide whether, in any case, it has all been worthwhile, or whether the interests of the shareholders may have been sacrificed to

the ambition of the chief executive of the predator or the unreasonable obduracy of his opposite number in the target company.

Statistics taken over a two-year period from 224 takeovers, show that shareholders in the target companies had a clear benefit.

Shortly before the announcement of the bid, their shares rose by an average of 10 per cent, reflecting, perhaps, market leaks of the imminent bid or, perhaps, the effect of stake building by the predators.

Their shares rose by an average 22 per cent after the bid was announced.

All of this is understandable since no predator would normally dream of offering anything less than a substantial premium on the price of the shares of the target at the time he was deciding what the bid price would be.

On the other hand, equally clearly, statistics show that the shares of the predators in the same cases were depressed for a period of two years and sometimes more after the event.

The effect of a bid on the shares of the bidder does not seem to deter those who wish to take over their rivals and the takeover market remains a brisk one.

At least the financial advisers, the merchant bankers, the

lawyers, the stockbrokers all do well - some may think much too well - and takeovers remain the most prestigious and sought-after area of work for them.

It would be difficult to attempt to regulate all takeovers and mergers.

It would be quite contrary to the free enterprise financial community in which we live and to which the British Government is so firmly committed.

The only remaining constraint is public opinion. In this case the opinion of the shareholders which could usually be expressed effectively only by the more organised, such as the institutional investors.

Or, perhaps, the time has come for some words of guidance from the regulatory body, the City Panel on Takeovers and Mergers itself, which has yet to be heard on the question of morality in takeovers as opposed to the detailed Code of Conduct which regulates the tactics of the takeover and merger rather than the ethics of the strategies of the contestants.

The author was Chief Legal Adviser to Lloyd's Bank, one of Britain's four largest clearing banks, until earlier this year when he returned to practice law at the Bar.

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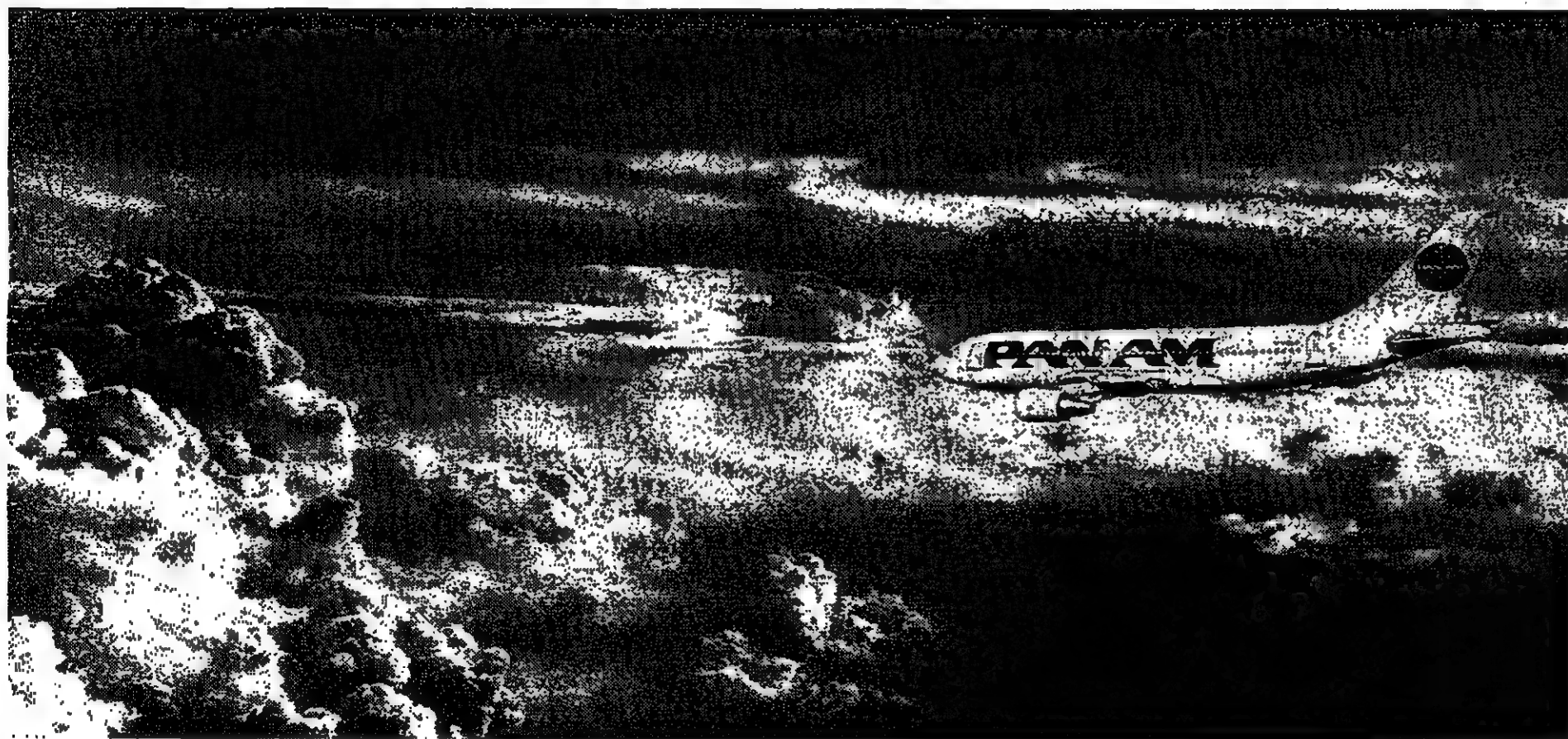
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## MANAGEMENT: Marketing and Advertising

## Frozen desserts

## Using protein to cream off the market

Clay Harris describes the route NutraSweet has taken to launch Simplese, its new fat substitute

Can pure indulgence be a simple pleasure? If it can, NutraSweet may be able to make Simplese, a new fat substitute, a branded ingredient as familiar to consumers as the low-calorie sweetener which gave the US company its name.

Simplese is created by heating and blending fresh egg whites and milk protein. The patented micro-particulation process shapes protein into a mass of round particles, thus reproducing the smoothness and creaminess associated with fat.

Robert Shapiro, NutraSweet's chairman and chief executive officer, says: "This looks and feels like a fat product, but it doesn't have any fat in it at all. It's protein."

In trying to repeat the success of NutraSweet, which was introduced in 1983, the company will use some of the same marketing techniques - including co-operative advertising with food manufacturers - but new ones as well.

The most important departure has been NutraSweet's decision to manufacture ice cream itself in order to introduce Simplese in the US. Simple Pleasures, the first product to contain the protein-based fat substitute, has proved so successful in its first month that capacity is strained.

I scream, you scream, we all scream for ice cream; this is doubly

true in the US, where 97 per cent of households buy it, and consumption reached 20.5 litres per capita in 1988.

Ice cream is "pure indulgence," says David Morley, group vice president and general manager of NutraSweet's Simplese business group. "If you can prove your case in ice cream, you can get acceptance in other product categories."

"It has to do with the special role ice cream plays as a validator of taste," adds Shapiro.

NutraSweet wanted to keep control over the product - to ensure its quality matched the best on the market - and over its debut presentation, to guarantee that Simplese was fully and correctly explained.

The insistence on the highest quality means there is a glaring omission in the initial line-up of flavours, which comprises chocolate, strawberry, coffee, toffee crunch, rum raisin and peach. "Vanilla hasn't met our taste expectations yet," Morley admits.

Simple Pleasures was launched at a hastily-called New York press conference on February 22, only four hours after the US Food and Drug Administration approved Simplese.

So far, NutraSweet has not spent a cent on advertising Simplese, relying instead on network television coverage and front-page news

stories. Simplese has also attracted the attention of talk-show host Johnny Carson and the popular music and satire programme Saturday Night Live.

"We knew we would be able to get this free publicity if we controlled the flow of information," says Morley.

Advertising will begin in the early summer, before the peak of the ice cream season. It will take a similar line to that for NutraSweet, which stressed that the sweetener had the same taste as sugar with



less than 1 per cent of the calories and without the tendency to promote tooth decay.

Few consumers, argues Morley, buy food products on health considerations alone; they are unwilling to sacrifice taste.

NutraSweet has spent \$200m worldwide to advertise the sweetener since its launch, and manufacturers have spent an additional \$1.25bn to \$1.5bn on their own advertising. The latter almost always contains a prominent reference to NutraSweet, in return for which the company notionally

reduces its charge for the product.

Shapiro expects spending on Simplese to be of a similar order, adjusted for inflation.

NutraSweet's top executives all joined the company before its previous parent, the pharmaceutical concern G D Searle, was taken over by Monsanto, the chemicals group, in 1985.

Despite their involvement in the previous product launch, Shapiro says: "We didn't want to be dominated by mental processes that came out of the NutraSweet experience. One could easily be seduced into thinking that Simplese is to fat what NutraSweet was to sugar."

For example, the concept of a sugar substitute was already well-established. Consumers were familiar with saccharin and cyclamate, even if there were drawbacks on taste and health concerns. But what is a fat substitute? Previous low-fat and cholesterol-free products have had something taken out, often with deleterious effect on taste and texture.

The market for Simplese, moreover, is likely to be more immediately international. NutraSweet got a head start in the US because of the huge carbonated drinks market and the established "diet" sector. For Simplese, however, "the European market will be at least as large as North America," says Shapiro.

The first launch is expected within 12 months.

Simplese is likely to have more diverse uses - in products such as salad dressings, yoghurts, mayonnaise, sour cream and butter spreads. Its profile may be different in each market.

The decision to open with an own product contrasts with the record on NutraSweet, which the company sold to any customer and supported with specific advertising. Only later did it manufacture its own end-product, the table-top sweetener sold as Canderel in the UK and Equal in the US.

With Simplese, NutraSweet intends eventually to make exclusive arrangements with manufacturers for the joint development of certain products. In some cases, it may adopt the previous approach of selling to all comers.

So far, however, only one agreement has been announced. Kraft, the Philip Morris subsidiary, has exclusive international rights to market mayonnaise containing Simplese once it is cleared by the FDA.

The Simplese process is licensed from John Labatt, the Canadian food, brewing and consumer products group, which retains the rights in its own country. NutraSweet argues that microparticulation involves only a change in the physical form of common foods, like mak-



The vanilla flavour has yet to meet Simple Pleasures' taste expectations

ing pasta from flour and water. This was accepted in most countries, including the UK, where Simplese did not require regulatory approval.

In the US, the FDA decided otherwise. So far, Simplese has only been cleared for use in ice cream.

Or, more precisely, in "frozen dairy dessert." US labelling regulations require a product to contain 10 per cent fat to be sold as ice cream.

Products with 4 to 7 per cent fat are described as "ice milk."

Although there is some lobbying for a relaxation of these rules to take account of Simplese and other products in the pipeline, Morley does not worry about what Simple Pleasures is called. It is sold in ice cream cabinets and is priced at the top of the premium range.

He is a burly middle-aged man with the air of a snugg, well-fed bully. But there is a note of concern in his voice as he starts to address his colleagues in a shadowy, smoke-filled American corporate board room:

"Gentlemen," he rasps, "the tobacco industry has a very serious multi-billion dollar problem. We need more cigarette smokers, pure and simple. Every day 2,000 Americans stop smoking and another 1,000 also quit. He pauses momentarily and then adds: "Actually, technically, they die."

"That means this business needs 3,000 fresh new volunteers every day. So forget all about that cancer-heart disease-emphysema-stroke stuff." He pauses again and smirks. "Gentlemen, we're not in this business for our health." He laughs. Others join in. Soon guffaws are echoing around the boardroom table.

## A campaign to make the US tobacco industry gasp

Sophisticated advertising techniques suggest that smoking makes one powerful, beautiful or sexy. Martin Dickson explains how the state of California is using taxes on cigarettes to fight back

This raw depiction of heartless corporate cynicism comes from an anti-smoking commercial being shown on television screens across California for the first time this month. It is the most controversial advertisement in one of the most aggressive anti-smoking drives ever mounted in the US, and indeed the world.

Campaigns warning the public of the perils of smoking to their health are in themselves nothing new, in the US or elsewhere. Nor are advertisements which try to persuade nicotine addicts that smoking is dirty, rather than glamorous.

What distinguishes the Californian campaign, which is being mounted by the state's Department of Health Service,

is the way it attacks the tobacco industry head on. For while the underlying premise of most anti-tobacco campaigns is that the smoker has a self-inflicted problem, the California one pins much of the blame on the industry and its sophisticated advertising techniques, which suggest that smoking makes one powerful, beautiful or sexy.

In a full-page newspaper advertisement, headlined "First the smoke, now the mirror," it attacks "the selling of suicide" and "all those carefully polished, fatal illusions the tobacco industry has crafted to mess with our minds, so they can mess with our lives."

Paul Keye, of Keye/Donna/

Pearlstein, the Los Angeles agency which created the campaign, explains: "We want people to be able to see the puppeteers' strings and make their own decisions."

"The tobacco industry has been playing with people's minds for ages," adds Dileep Bal, the health official heading the campaign. "We're simply trying to create a level playing field."

Bal says the advertising campaign, which will cost \$25.6m over the next 18 months, is merely the attention-grabbing start of a much wider Californian educational drive, costing some \$130m a year.

Fuelling controversy over the campaign is the fact that

smokers are themselves having to foot the bill for it. A Californian state referendum in November 1988 raised the tax on a pack of cigarettes from 10 cents to 35 cents - among the highest in the nation - and stipulated that part of the money raised be used to educate the public on the dangers of smoking.

The tobacco industry is furious. Its Washington lobbying group, the Tobacco Institute, complains that "California is making smokers pay for their own harassment." But since tobacco advertising has been banned on television and radio since 1971, its ability to hit back is limited.

The industry has been very much on the defensive in recent months, with anti-smoking sentiment growing markedly around the country, particularly in Washington.

Last January, R J Reynolds abruptly withdrew a new cigarette, called Uptown, which was specifically aimed at black smokers, after a protest campaign.

Louis Sullivan, the US Health Secretary, had accused the company of "slick and sinister advertising" and "promoting a culture of cancer."

He renewed his attack when a leaked document alleged the company was planning a new cigarette aimed at 18 to 20 year-old "virile females" - a claim Reynolds denied.

Whatever the truth, the Californian campaign mirrors the way in which the tobacco companies' advertising has been increasingly targeted at specific groups, such as teenagers, ethnic minorities and women.

One of its television advertisements, designed to underline the risks to non-smokers of tobacco, shows a husband enjoying a cigarette in the bedroom.

He inhales, but it is his wife, reading a book in bed, who exhales the fumes. By the end of the advertisement, she is doubled up choking, with smoke billowing from her mouth like a factory chimney.

Keye/Donna/Pearlstein, the agency behind the campaign, is not one of the biggest US

agencies. The magazine Advertising Age ranked it 103rd in the US last year by gross income. It is best known for another series of public health television advertisements, against drugs.

This uses the simple image of a whole egg to represent the human brain. The egg is then smashed into a frying pan. There is a close up of it sizzling, while a voice intones: "This is your brain on drugs. Any questions?"

The agency's copywriting for the tobacco campaign explicitly plays on Californian local pride, declaring in one advertisement that "there's never been anything like this. But this is California. We don't need to do it the way it was done before."

Indeed, while the state produces many cranksy ideas, what it does today the rest of America often does tomorrow. And that knowledge should be giving a few sleepless nights to the tobacco companies.

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5	JP Morgan & Co.	2,662.35	5	11.07
6	Citicorp	2,628.95	5	11.07
7	Credit Suisse First Boston	1,660.00	3	7.05
8	Barclays Bank	1,607.88	5	6.74
9	Société Nationale d'Etats	1,280.00	1	5.34
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# Babble of dialects behind investment decisions

By David Waller

IF ONE scrutinises the financial statements of three multinational companies in the same industrial sector but from three countries, the chances are that it will be difficult – if not impossible – to make sensible comparisons.

It would, for example, be hard to determine the extent to which a West German motor manufacturer was more profitable than its main rivals in the UK and the US, or whether the shares in their Japanese competitors were relatively cheap or expensive.

The reason for this is that financial statements are prepared in line with local rules, themselves rooted in local business culture. Far from being an international language, accountancy is merely a babble of mutually unintelligible dialects.

By contrast, the decisions of those using accounts are increasingly international in scope. Fund managers take little notice of national barriers when they make investment decisions. Businessmen look at international markets when they decide where to build a factory.

These problems are considered in a lengthy report commissioned by Arthur Andersen, the accountancy firm, and Salomon Brothers, the securities house, and published earlier this month. The document

looks at the effect that accounting diversity has had on global capital markets.

It also asks a central question: if the purpose of accounting is to portray economic reality, "are the economics driving the accounting or vice versa?" That should be of interest to UK finance directors convinced that they are at a commercial advantage over their US competitors when making acquisitions, simply because of rules on accounting for goodwill.

### Many institutional investors believed that accounting differences affected their investment decisions

Representatives of 53 institutions from Japan, the UK, West Germany, Switzerland and the US were interviewed at length by two professors from New York University. Those interviewed included fund managers, representatives of banks, corporate issuers, underwriters and regulators. The report's main findings include:

● Half of those interviewed felt that their capital market decisions – on where to invest or where to borrow – were affected by accounting differ-

ences. That proportion underestimates the proportion influenced by accounting diversity because it does not include those who have changed the way they analyse foreign investments.

● More than half of the institutional investors said they believed that accounting differences affected their investment decisions. Although a significant number of fund managers attempt to get round that by restating foreign numbers in line with local accounting standards, that was not enough to remove the problem.

"Restatement is helpful but not sufficient," declared one of underwriters quoted in the report. "Accounts which are prepared by accountants are true but they may not be all the truth."

A handful of fund managers said they got round the problem by developing what the researchers call "multiple principles capabilities." That means relying on original accounting statements and intimate knowledge of local market conditions. Nevertheless, the report identifies a clear demand for a global database in which company accounts are restated to reflect US accounting policies.

"Comparisons are more feasible for a US company, a UK company or an Australian company," said one fund man-

ager. "Scandinavia is improving but the Japanese companies are a nightmare. In Europe, even within countries, there may be significant differences in reporting. As a general rule, the closer you get to Switzerland, the worse the financial reporting becomes."

"In the international market you can enjoy much higher returns from information," said one underwriter, observing that the US and UK were so awash with information that it was difficult to outperform the market. Barriers to entry are high, the underwriter added. "The thing that's nice about international fund management is that the boutiques can't do it. The range of skills required... is too expensive for many to compete."

● By a slim majority companies did not feel that their decisions on where to issue securities were influenced by accounting differences. However, disclosure differences did affect financing decisions, suggesting a close link between accounting and regulatory diversity.

Nationality appeared to influence companies' readiness to be flexible when raising capital. US and UK companies were more willing to tap international capital markets than their competitors from West Germany, Japan and Switzerland. The reason for this is

that US and UK companies have high standards of accounting and financial disclosure, and thus have to give less away when seeking a listing on an overseas stock market.

Only 89 non-US companies are listed on the New York Stock Exchange, where standards of disclosure are high if not onerous. Virtually none of those companies are French or German. Nearly three times that number are listed on the

with intrinsic value? The report does not set out to tackle this knotty question head on, although many fund managers would undoubtedly like to know whether economic fundamentals can explain why the average price-earnings ratio on the Japanese market at the end of last year was 54, against 29 in Normandy and 10.4 in the UK.

The report concludes by making the unsurprising suggestion that harmonising accounting standards about the globe will be difficult.

It also suggests some interesting areas for future inquiry – for example the extent to which fund managers' country weightings or required returns are related to the quality of financial reporting in that country.

The International Accounting Standards Committee has been striving since 1973 to secure some global accounting harmony.

Later this year it will intensify the debate stirred up by the AA and Salomon report when it publishes the responses to its own proposals to reduce the number of options available to companies which adopt IASC standards.

The *Capital Market Effects of International Accounting Diversity*, available from Arthur Andersen & Co or Salomon Brothers.

### Are share prices consistent with intrinsic value? This report does not tackle that knotty problem head on

Amsterdam exchange, which is only 3 per cent the size of the NYSE.

Any company should think five times before getting caught with a US quote and the requirement to produce quarterly statements," said one underwriter. "Damned expensive! And there is no benefit because the few US investors who invest internationally won't be interested in whether it is quoted in New York or not."

Are share prices consistent

### ACCOUNTANCY APPOINTMENTS

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## RATHBONE

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We are currently acting on behalf of a number of International Investment Houses intent upon expanding their Swaps Accountancy Operations. In each case a fully qualified accountant, whether ACA or ACCA, is required.

Applications are invited from individuals with a minimum 3 years post qualification experience of Capital Markets. Managerial experience would be a distinct advantage. You will have comprehensive knowledge of accounting procedures in Swaps and derivative products, risk management, futures and options.

In each instance a competitive salary will be offered together with considerable scope for career development.

For a confidential discussion please contact Simon Dick.

## FINANCE DIRECTOR DESIGNATE

South Coast  
c.£30,000 + bonus + car

OUR CLIENT, a profitable £80 million-turnover company engaged in the manufacture of consumer durable products, is market leader in its sector in the UK. With the advent of 1992, it is positioned to build on its success to date and looks forward to a period of significant growth in its profitability.

The company wishes to appoint a commercially-oriented, hands-on Finance Director Designate with an excellent track record gained in a manufacturing environment. As a key member of the management team, the role encompasses the implementation and maintenance of strong financial controls, monthly, budgetary and statutory reporting, the development of enhanced management information systems, and the smooth-running of the company's finance department.

The successful candidate will be a qualified accountant, aged late 30s – early 40s, possessing outstanding interpersonal and commercial skills and who appreciates the significance of accurate product costings and the maintenance of acceptable gross margin levels.

The attractive remuneration package will reflect the seniority and demanding nature of the position and will include a profit-related bonus and other Senior Executive benefits. The successful candidate will receive assistance with relocation expenses where appropriate.

Please send full cv which will be forwarded to our client unopened. Address to our Security Manager if listing companies to which it should not be sent. Ref: R2385/FT, PA Consulting Group, Advertising and Communications, Hyde Park House, 60a Knightsbridge, London SW1X 7LE.

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## Finance Manager—International

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**FISONS**  
Pharmaceuticals

Our client, Fisons Plc, has been one of the major success stories of the 1980's. Their Pharmaceutical Division now has a requirement for a Regional Finance Manager to join their International Regional Headquarters.

Based at Loughborough and reporting to the International Director, the person appointed will be a key member of the management team and be responsible for financial and analytical support. This will also encompass business evaluation, performance monitoring and acquisition analysis. Considerable liaison will be necessary with senior management in the UK and with the subsidiaries and associated companies operating on a worldwide basis. This will necessitate travel to these locations.

Candidates should be:-  
● Qualified Accountants educated to degree or MBA level.  
● Aged 28-35.  
● Possess experience of working in the finance function at a senior level with a multinational corporation either at headquarters or in a line role ideally within the pharmaceutical or fine chemicals industries.  
● Excellent communicators with strong diplomatic and listening skills.  
● Business orientated and prepared to travel.

This challenging and interesting position has exceptional career development potential. If you are interested, please telephone Stuart Adamson FCA or Roger Webb FCA on 0532 451212 or send your CV, in confidence, quoting reference number 716, to Adamson & Partners Ltd, 10 Lisbon Square, Leeds LS1 4LY. Fax number 0532 420802.

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TO £60,000 + BONUS + CAR

## Finance Director

As part of a highly respected UK based International Plc, this £160m division comprises some 10 companies ranging from £2m to £80m in size and provides a wide range of support services to the construction industry. Recent expansion in the division has resulted from a combination of strong organic growth and acquisitions, and this trend will continue.

In order to ensure that the Divisional Chief Executive has the highest standard of financial and commercial support, the new position of Director with responsibility for commercial and financial controls has been created. This new appointment complements and strengthens a small team of senior executives who are responsible for the management and development of the division, on an international basis. An early task of this new appointment will be to undertake a critical review of unit performance together with local executives so as to establish a sound base for future development. As part of this review, an assessment of control systems and personnel in each of the operating units will be necessary.

You will be a qualified graduate FCA/FCMA who has been used to operating in a divisional or senior role in a blue chip organisation. You must have had responsibility for the quality of controls in a diverse range of companies and a knowledge of foreign business methods, particularly those of the USA, would be an advantage. As the major divisional businesses are located throughout the UK, the USA, mainland Europe and Australia, you must be prepared to travel as necessary. You will be confident, tenacious and tactful and your ability to gain the confidence of senior managers within the division will be the key to your success. Opportunities for further career advancement are excellent.

Please send full personal and career details, including daytime telephone number and details of salary progression, in confidence to John Elliott, Coopers & Lybrand Deloitte Executive Resourcing, 76 Shoe Lane, London, EC4A 3JB, quoting reference JB80 on both envelope and letter.

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Coopers & Lybrand Deloitte is the business name used by Coopers & Lybrand and Deloitte Haskins & Sells in the UK. The two firms are in merger as of 28 April 1990.

## FINANCIAL CONTROLLER

INTERNATIONAL  
MEDIA GROUP

LONDON

c.£30,000

A highly successful International Publishing Group has an excellent 'newly created' opportunity within one of its subsidiary companies for a young and ambitious Financial Controller with a strong commercial cutting edge.

The working environment is fast moving. Results are rewarded and the company's UK and Overseas operations offer real career progression. A Qualified Accountant, aged ideally 25-35, you have these key factors:

- Fluency in French or another European language
- Strong EDP systems experience
- Excellent strategic planning skills
- Presentational skills

As the company expands over the next 2 years, European business will increase greatly and your role will encompass a full management accounting function, reviewing policies and procedures and ensuring the implementation of approved financial goals.

To discuss this position in strictest confidence, telephone Mr. Gary Ison on 01-839 8435 (days) or 01-524 7007 (even/weekends). Or send your CV to him at PER Consultancy, Rex House, 4 Regent Street, London SW1Y 4PP. Fax 01-930 0045.

**PER**

**RECRUITMENT CONSULTANCY**



CITY

to £35,000  
+ BENEFITS**Financial Accountant**

Our client is a large and prestigious City firm of solicitors offering a wide range of services. Already a substantial firm, the practice is still growing and sound financial accounting systems are essential in order to ensure continued success.

Reporting to the Deputy Financial Controller, you will make a significant contribution to the control and development of the finance function. Responsibilities will include financial accounting, internal audit, credit control, capital expenditure and development of computerised accounting systems.

Ideally in your late twenties or early thirties, you will be a Chartered Accountant with not less than three years' post qualification experience. Having gained experience in an industrial, commercial or professional environment, you will have a broad range of financial skills and good

experience of computerised systems. As a mature and conscientious individual, you will welcome the opportunity to join a leading professional firm.

In addition to the excellent salary, benefits will include life assurance cover and membership of non-contributory pension and private health schemes.

Please send full personal and career details in confidence to Isabelle Benson, Coopers & Lybrand Deloitte Executive Resourcing, PO Box 198, 26 Old Bailey, London EC4M 7PL, quoting reference 5362/FT on both envelope and letter.

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& Lybrand  
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COURAGE

**European Finance Manager**c £40,000 plus benefits  
Staines

Courage Limited is a major division of the Elders Brewing Group, the fourth largest brewing operation in the world.

The expansion of activities into European markets is an integral part of the corporate business strategy, and a dedicated multi-disciplinary team is constantly assessing new commercial opportunities for the group within those markets.

The Executive Director leading the European initiatives now wishes to augment the team with a highly motivated Finance Manager to assume responsibility for providing comprehensive financial support to the European operation.

This demanding role will require continuous involvement in the development of business plans and investment appraisal projects together with the effective management of all traditional "house-keeping" aspects of the finance and accounting functions. Frequent trips to Europe are likely - often at short notice.

The successful candidate, who is unlikely to be aged under 30, will be a qualified accountant (probably chartered) with at least four years post qualified experience of working in a multi-national organisation in a team oriented environment. Strong analytical and negotiating skills are

essential, as is a thorough grasp of investment appraisal techniques and a sound knowledge of European business practices. Fluency in one or more European languages would be a distinct advantage.

If you are interested in the challenges offered by this position please write to Christopher Hetherington quoting reference C/1044 enclosing full CV and salary details:  
**Executive Selection Division  
Price Waterhouse  
Management Consultants  
No. 1 London Bridge  
London SE1 9QL**

Price Waterhouse

**The Thames Valley  
ACCOUNTANCY CAREER FAIR****>> Ramada Hotel, Reading Wednesday April 25th 4.30-9.00 <<**

Considering your next career move, or keen to know more about current market activity? Below are representatives of the business community who will be at the career fair to discuss their recruitment requirements.

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For more details about the event or for further information if you can't make it on the day contact David Brownlow on 0763 35998.

**Accountancy Personnel**

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RAVEL

**Financial Controller**

c£28K + Bonus + Car + Relocation Where Appropriate

The Company is a market leader in Fashion Footwear retailing with a turnover of £45M, operating as an autonomous subsidiary of one of the UK's leading footwear groups C & J Clark International Limited.

The Position reports to the Managing Director, with responsibility for the Finance and administration functions, the production of monthly accounts, budgets and annual accounts. You will also be expected to become fully involved in all aspects of the Company's affairs as a senior member of the management team.

You should be a qualified accountant 27-35, a good communicator with established man management experience. This is a fast moving environment in which commercial awareness is vital.

If you wish to join a successful team and can contribute to its continued success in the 1990's send your curriculum vitae to Rosemary Johnson, Head of Human Resources, Chaussures Ravel Limited, 1-4 Alexandra Terrace, Alexandra Road, Aldershot, Hampshire GU11 3HU. Telephone No. (0252) 334091.

BIRMINGHAM

c.£38K + CAR + BENEFITS

**Finance Director**

This autonomous £30m turnover subsidiary of a well respected UK based international group has a first class reputation for product quality and technical innovation within the building products industry.

A commercially aware qualified accountant is required to head up the financial function. Initial emphasis in the position will be on cost and cash control monitoring and improvement and there will be ample opportunity for involvement in the commercial aspects of the business.

Experience is required of systems implementation in a manufacturing environment and you will have been used to making a strong contribution within the management team. Your technical competence will be taken as read

and your communication, man management and analytical abilities should be of a high order.

Opportunity for developing your role within this company or career development within the group can only be described as excellent.

Please send full personal and career details, including daytime telephone number in confidence to John Elliott, Coopers & Lybrand Deloitte Executive Resourcing, 43 Temple Row, Birmingham B2 5JT, quoting reference JEB1 on both envelope and letter.

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& Lybrand  
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Resourcing**Accounting For Change**

A major transport concern with offices in Harrow has vacancies for two strongly motivated professionals to help guide the company through a period of organisational change. Used to working within the strictures of large company deadlines and discipline, you should also be capable of meeting the challenge of accountability within a largely autonomous unit.

**FINANCIAL ACCOUNTANT**

to £26,000

Taking full responsibility for maintaining the financial records of the company, you will be able to show a good record of achievement in commerce or public practice. Your professional qualification, whilst essential, will be matched by practical experience and enthusiasm. Previous exposure to complex intercompany transactions within a procedure driven system will be of great advantage, as will an in-depth knowledge of computerised accounting systems. A capable man-manager who is able to motivate staff by leadership and example, you should now be ready to take up this senior position in a fast moving company.

**MANAGEMENT ACCOUNTANT**

to £23,500

Probably, though not necessarily, qualified, you must be capable of leading a small team charged with a two-fold responsibility. Working to tight deadlines you will be responsible for preparing monthly management accounts and statistical returns for group head office and local management. You will also use your undoubted analytical and investigative skills to identify the causes of budget variances and present your findings in a clearly understandable fashion to operational management. A good communicator and lucid thinker who is used to using all the tools modern technology provides you with, you will have already shown your worth in the provision of valuable and innovative management information and will now be looking to progress your career further in a demanding and stimulating environment.

If the prospect of making a positive contribution to a company at an exciting stage in its development appeals to you, please send full details of your career to date to Trina Hay at Lonsdale Advertising Services Limited, 112-122 Tabernacle Street, London EC2A 4LE. Telephone: 071-490 7747, Fax: 071-490 5029. Quoting ref: FT/4.

Please note separately any companies to whom you do not wish your application to be forwarded.

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FINANCIAL TIMES

CURRENCIES	SHORT STERLING	SHORT EURODOLLAR	LONG	LONG DOLLAR	LONG EURO	LONG YEN	LONG DOLLAR	LONG EURO	LONG YEN
100/100	100/100	100/100	100/100	100/100	100/100	100/100	100/100	100/100	100/100

**BUSINESS DEVELOPMENT ANALYST  
FINANCIAL FUTURES AND OPTIONS - LONDON**

In the past eight years, the London International Financial Futures Exchange has established itself as a world-leading marketplace for the trading of financial futures and options contracts.

Continuing business expansion, coupled with increased interest in continental products, has created the need to appoint a dynamic business graduate to market LIFFE's products in Italy. As a member of our London-based European Business Development team, you will participate in product and market research in continental Europe - a market with considerable growth potential - and contribute to the development and implementation of market strategies. European travel will, of course, be required.

A sound understanding of futures and options and

their applications in risk management is essential. As our constant link with European financial markets, you will need to be a highly effective communicator; you must be fully fluent in Italian and, possibly, French.

Salary will be supported by an attractive range of benefits, including comprehensive assistance with relocation to England if necessary.

To find out more, please call our European Business Development Manager, Ralf Harklotz, on (0404 1) 623 0444 ext 2283, or send your full personal, career and salary details to Helen Jenkins, Personnel Manager, LIFFE, The Royal Exchange, London EC3V 3PL.

LIFFE The London  
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**FINANCIAL CONTROLLER**

Northampton

£30-35k + bonus and benefits

Wilson (Connolly) Holdings is a house building, construction and property development group with a high reputation for quality within the industry and an impressive growth and profitability record since the 1970's.

To continue to grow in the 1990's, increased emphasis is now being placed upon construction and property development and a Financial Controller is to be appointed to provide a full accounting service in support of these activities. In addition, the Financial Controller will have responsibility for specific group finance activities including

cash flow forecasting, treasury management, and consolidation of accounts.

Candidates should be chartered accountants with an excellent track record professionally and at least three years' industrial experience. Exposure to major construction or property development companies would be useful.

In addition to basic salary and bonus, benefits include a fully expensed car, BUPA, pension and share schemes.

Please write, in confidence, quoting reference MK3004 Peter Coles.

**Peat Marwick Selection & Search**

Norfolk House, 499 Silbury Boulevard, Central Milton Keynes, MK9 2HA

مكتبة الصلح



## Finance Director

Surrey

£40,000 + Equity + Car

Our client is a profitable, privately owned, specialist manufacturing company, with a turnover in excess of £10m, generated from its international operations. Substantial growth is planned, both organically and by acquisition, with a view to flotation in the medium term.

The Finance Director will have total responsibility for the finance, computing, treasury and company secretarial functions, with emphasis on the implementation and development of effective management control and reporting systems. The successful applicant will be expected to make a significant contribution at Board level, working closely with the Managing Director to ensure the continued profitable development of the business.

Candidates, aged 35-45, should be

qualified accountants with a track record of achievement gained at senior level in an international manufacturing environment. Strong management ability, well developed communication skills and maturity of approach, combined with the flexibility to operate effectively at both strategic and routine levels, are essential requirements.

The successful applicant will have the opportunity to subscribe for shares in the company.

Relocation facilities are available where appropriate and interested applicants should send a comprehensive curriculum vitae, quoting reference: 2623 to Alan Dickinson ACMA, Executive Division, Michael Page Finance, 39-41 Parker Street, London WC2B 5LH. Tel: 01-831 2000.



**Michael Page Finance**

International Recruitment Consultants

London Bristol Windsor St Albans Leatherhead Birmingham Nottingham  
Manchester Leeds Newcastle-upon-Tyne Glasgow & Worldwide

## Finance Director

South Midlands

c£30,000 + Car + Bonus

Our client is a multi-million turnover UK based group, with a diverse range of activities both in the UK and overseas. Rapid expansion in recent years has been achieved by a concerted policy of acquisition supplemented by organic growth.

They now require a qualified accountant, aged 30-45, to take on the role of Finance Director for one of their Midlands-based manufacturing subsidiaries. The company is well established within its market and is now looking to enhance its dominant market position, improving efficiency and profitability at its existing facilities, and by acquisitive expansion.

The role reports operationally to the Managing Director on-site.

and functionally to the group Finance Director. Responsible for the full finance function, you will also be expected to play a leading role in the implementation of integrated management information systems.

Commercially aware, with an assertive, self-confident nature, you will be able to demonstrate the ability to both suggest and implement change. Success in this position will lead to further opportunities within the group in either financial or general management.

Interested candidates should apply, enclosing a current curriculum vitae, to Oliver Howl BSC, ACA, at Michael Page Finance, Bennetts Court, 6 Bennetts Hill, Birmingham B2 5ST.



**Michael Page Finance**

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## Financial Systems Consultancy

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West of London

To £30,000 & Car & Benefits

Glaxo is one of the UK's most successful companies and a world leader in ethical pharmaceuticals. Sales since 1981 have grown from £700 million to more than £2.5 billion and profits now exceed £1 billion a year.

Due to a promotion we are looking for a key member of a small professional team within Glaxo Pharmaceuticals UK, the Group's UK sales and marketing company, which will shortly be moving to prestigious new offices at Stockley Park, west of London.

Glaxo has substantial investment in sophisticated, fully integrated financial and management information systems. Your role will be to ensure that their full potential is realised and that the company remains at the leading edge of systems technology. This will involve devising long term systems strategy, setting systems development plans, and managing implementation. You will be assisted by experienced systems analysts and programmers in the technical aspects of development.

This high profile role will place you at the forefront of financial systems technology and provides an excellent springboard from which to develop your career with Glaxo.

We are looking for a qualified accountant, preferably a graduate aged 24 to 28. Previous systems development experience is not a prerequisite. A creative, analytical approach and an aptitude for problem solving will be necessary. This could be your first move from a major firm of chartered accountants or you may already have experience with a multinational company. The desire and ability to progress quickly in a fast moving environment is essential.

To learn more about working with one of the UK's fastest growing Blue Chip groups please send your career details to our consultant, Sue Rosalter, at Barrett Webb Limited, Boston Road, Henley-on-Thames, Oxon RG9 1DY. For an informal preliminary discussion please telephone her on (0491) 410766. Strict confidentiality is of course assured.

**Glaxo Pharmaceuticals UK Limited**

## Financial Director

c £35,000 plus Executive benefits  
West Midlands

Our Client is a major retailer based to the North of Birmingham and operating 550 outlets nationwide. The Company is expanding through both organic growth and acquisition and, with a turnover in excess of £250 million, is one of the principal players in its field.

An energetic Finance Director is required to run the finance and administration functions. Reporting to the Group Financial Director you will manage a large department and will have responsibility for the development and implementation of financial controls and reporting. The Company is going through a process of change and you will be expected to contribute fully to this in the design of policy and in the restructuring of the Finance function.

The position calls for a qualified Chartered Accountant with a first class technical accounting background. A good understanding of management information systems is required as is familiarity with treasury, taxation, acquisition and investment issues. A background in retail would clearly be an advantage.

Interpersonal skills are vital—the senior management form a positive, pro-active and dedicated team. You should be able to produce high quality results under pressure in a fast-moving, challenging environment. You should have the confidence and enthusiasm to play a part in the Company's expansion through the 1990's and beyond. It is unlikely that a candidate under the age of 30 will have the experience and maturity required for this high profile position. The highly competitive remuneration package includes a fully expensed car, executive share options and comprehensive relocation assistance where appropriate.

Candidates should write including full career and salary details quoting reference MCS885 to Jim Mitchell

Executive Selection Division  
Price Waterhouse  
Management Consultants  
Livery House, 169 Edmund Street  
Birmingham B3 2JB

**Price Waterhouse**

## Commercial Accounting



c£30,000  
+ mortgage etc

Providing high quality and cost effective financial and business support services to the Prudential's substantial and diverse operations offers a major commercial challenge.

At a time of further rapid growth and decentralisation we seek a commercially experienced qualified accountant aged mid/late 20s. Providing financial planning and control support to a number of key business activities, emphasis will be on the production and interpretation of management accounts, control of a multi-million pound budget, forecasting and cost and capital investment appraisal to ensure competitive pricing of services.

A real commercial input is sought in this still developing function based in Central London so initiative, computer literacy and strong communication skills are prerequisites. Salary is negotiable according to age and experience and will be supported by a competitive benefits package. Future prospects within the group are excellent.

Please write, enclosing a full career/salary history and daytime telephone number, to David Tod BSc FCA quoting reference D/914/F.

## FINANCE DIRECTOR

A highly commercial role within sales, marketing and distribution  
Manchester To £30,000 + Car + Excellent Bonus + Benefits

Our client is a highly profitable, autonomous subsidiary of an international marketing-led PLC. Having strong links with the USA, it provides the UK sales, marketing and distribution services for high quality, brand name consumer goods.

This highly charged and fast moving environment is run by a young, self-motivated management team. They possess a level of drive and commitment which constantly results in further penetration of this competitive market.

Created due to expansion, this is an outstanding opportunity for a dynamic and ambitious individual to undertake the role of right hand person to the Managing Director.

Whilst you will have total control of the finance function, great emphasis must be given to the commercial aspects of this role. The Managing Director spends over 60% of his time off-site and this is indicative of the considerable

involvement you will have in the running of the business on a day to day basis. You will also be involved in meetings and close liaison with the customer base which consists predominantly of major blue-chip organisations.

Likely to be aged in your early thirties, you will be a qualified accountant whose successful track record has been achieved within a small/medium sized company background. You will possess commercial flair, incisive business judgement and strong managerial and interpersonal skills. You will respond well within this dynamic and hands-on environment as you will be an individual who thrives on challenge and total involvement.

Interested candidates should forward a full curriculum vitae to Alison Hill or alternatively telephone 061-236-1212.

Stark Brooks Associates, Suite 4, 2nd Floor, St. James's Buildings, Oxford Street, Manchester M1 6FQ.

**STARK BROOKS ASSOCIATES**

Accountancy Recruitment Consultants

MANCHESTER ♦ LEEDS

## Financial Controller

Windsor



c. £42,000  
+ car



HFC Bank Plc, a wholly owned subsidiary of the US based Household International Inc., is undergoing a substantial development and investment programme to create an entirely new style of financial institution.

This initiative has considerably increased its market share. It now boasts 170 branches, backed by assets in excess of £1 billion, giving 95% of the UK population easy access to its services.

The expansion has created an urgent need to recruit a high calibre Financial Controller to report directly to the Finance Director. You will lead an expert reporting team, and will be directly responsible for all the internal and external reporting for the Group.

consulting on technical accounting issues, and advising senior management on performance and profitability. Additional responsibility will be to instigate, monitor and supervise accounting projects.

Candidates should be graduate chartered accountants with a strong analytical and technical background, preferably gained within a large audit practice. You must be able to demonstrate an ability to both lead and motivate a team and show that you can communicate effectively with senior management.

Interested candidates, should in the first instance, write to Nigel Beasley of Martin Ward Anderson, quoting reference number M119, at the address below.

Martin Ward Anderson, Lords Court, St Leonards Road, Windsor, Berkshire SL4 8DB. Telephone: (0753) 830881.

## European Corporate Audit

Major U.S. Multinational offers career opportunities to newly/recently qualified accountants wishing to gain European experience.

LONDON

Or other major European City location

Excellent Salary

This U.S. Multinational is a technology-based company supplying advanced electronics products and services to industry and commerce. With worldwide revenues in excess of \$5 billion it operates in the USA, Canada and Europe. There is now a requirement for individuals who are interested in developing an international career within this diverse group.

You will be working in a small, closely-knit but high-profile group reporting directly to top management in the U.S. Assignments will include financial audits, analysis of operational procedures and controls together with ad-hoc assignments. This will involve extensive travel in Western Europe with return visits to your home base at weekends.

Candidates must be professionally qualified accountants or equivalent with experience gained within a large firm of practising accountants. They must be capable of working autonomously and they should have some aptitude for languages although language training will be provided.

This position offers an excellent stepping stone into Europe for a newly qualified accountant with the opportunity to work throughout Europe. It should be considered as a more rewarding alternative for someone already thinking of transferring to a large practising firm in Europe. You will be working with professional colleagues in a congenial atmosphere. The excellent salary offered allows capital accumulation. You will be based in London or in any other major European city of your choice.

Interested candidates should write in confidence to: Nicholson International (acting consultants), 142 Buckingham Palace Road, London SW1W 9TR quoting reference B111, or fax details on 01-823 6835 or call directly on 01-730 8910 for an initial discussion.



**NICHOLSON INTERNATIONAL**



## Director & Controller

### International Building Services

To £40,000 + Bonus Rural Midlands

A blue-chip British multi-national is building a new Pan-European equipment hire division. A dynamic and talented young manager is needed to provide the financial input in the team planning and implementing a rapid growth strategy.

#### THE COMPANY

- ◆ Newly created Division within well known FTSE 100 manufacturing and services group.
- ◆ Substantial capital committed to building equipment rental businesses across Europe.
- ◆ Dynamic management team embarked on strategy of rapid growth by both acquisition and greenfield development.

#### THE POSITION

- ◆ Key member of management team. Reporting to Divisional Managing Director.
- ◆ Full responsibility for all financial management and reporting in this multi-business start-up.
- ◆ The first task is to set up financial systems and tight controls to demanding large group standards.

#### QUALIFICATIONS

- ◆ Graduate calibre qualified accountant aged 30-40 with senior financial control experience in a large group.
- ◆ Record of success in a multi-site service business, preferably at divisional level with international operations.
- ◆ Drive, personal dynamism and team orientation are essential.

Please write enclosing full CV, Ref B11466  
NBS, Bennetts Court, 6 Bennetts Hill,  
Birmingham, B2 5ST



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## Financial Controller

c. £45,000 + Share Options Central London

Fast expanding, global services and marketing group offers a strategic career move for a financially astute, commercially minded business Controller. Varied and demanding role covering operations in SE Asia and the Middle East involving extensive international travel.

#### INCHCAPE

- ◆ £3bn turnover group with interests in over 60 countries, employing 45,000 people worldwide.
- ◆ Activities range from marketing and distribution of motors to consumer and industrial products and from shipping services to timber resources.

#### THE POSITION

- ◆ Senior member of the Group Finance team, but with close active involvement with the field.
- ◆ Facilitate the flow and quality of information and be the major interface between Group and operational management.
- ◆ Analyse results, enhance working practices, support the businesses at the local and Group levels.

#### QUALIFICATIONS

- ◆ Strong minded graduate accountant or MBA. 28-33. Numerate with strong analytical and financial skills and commercial orientation. Prepared to travel.
- ◆ Experience in both a financial/strategic staff role with a progressive multinational and in a line finance function.
- ◆ Outstanding communication skills, used to working at the highest level.

Please write enclosing full CV, Ref SJ1570  
Orion House, Grays Place, Slough, SL2 5AF



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## FINANCIAL CONTROLLER

Thames Valley c£26,000 + Car

A unique opportunity exists with an established company based in the Thames Valley, whose impressive organic and acquisition led growth identifies them as a commercially astute and progressive organisation.

Their core business is within the container leasing market, where they have enjoyed enviable success worldwide.

The successful candidate will be responsible for the complete accounting function which includes statutory and management accounting, budgeting, forecasting, development of MIS and strategic planning. The role requires an excellent communicator and team manager, as liaison throughout the organisation will be on a day to day basis.

The ideal candidate will be qualified and aged around 30 years, have a shirt sleeve approach, and have the flexibility and commitment to become a key member of the management team in an ever changing and demanding environment.

Please telephone or write to Bretz Melbourne, Managing Consultant, at

MANAGEMENT PERSONNEL  
2 Eton Court, Eton, Windsor, Berks SL4 6BL  
Tel: 0753 854256 (24 hours)  
Fax: 0753 841783



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## FINANCIAL ANALYST

£29,000

+ Car

+ Bonus

C. London



ROBERT  
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LONDON

Our Client is a substantial plc with interests in retail, financial services and property. Already dominating niche markets, development will continue through maximisation of profit in core businesses.

Due to internal restructuring an opportunity now exists for a recently qualified Accountant to join their corporate headquarters, operating within a small and highly professional team. Responsibilities will include the review and analysis of divisional performance and commenting on business trends. In addition, the job holder will be working closely with senior operational management in the development of their business plans and involvement in ad hoc projects.

Candidates will be qualified Accountants, possessing strong analytical and communication skills. The position is a proven route to other commercial and financial roles with the Group.

Please apply directly to Collette Harrison at Robert Half, Freeport, Walter House, Bedford Street, 418 The Strand, London WC2R 0BR. Telephone: 01-836 3545, or evenings on 01-771 6457. Alternatively, fax your details on 01-836 4942.

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## The first move is Audit The second is up to you

As a member of the BAT Industries Group the statistics relating to its Associated Company B.A.T. (U.K. and Export) Limited make impressive reading. Over twenty world renowned brands are exported to some 174 markets worldwide, creating a turnover of £251 million with a pre-tax profit of £53 million.

A highly professional, effective and self-sufficient Internal Audit function plays a critical part in our operational efficiency. We are currently looking for two fully qualified Chartered Accountants to play vital roles in this team.

Operating initially in the UK, you'll discover opportunities to go overseas or to develop your career within B.A.T. Industries—one of Britain's largest industrial groups with substantial interests in financial services as well as tobacco.

### Internal Audit Manager

c£33,000 + car

You will report directly to the Finance Director, and alongside the management of the department, you'll be a key member of our Audit Committee with responsibility for monitoring and progressing recommendations made by both you and your colleagues.

Close liaison with all levels of management will challenge your ability to communicate and utilise your man-management skills. You will bring to the position a comprehensive knowledge of audit, three to five years' post-qualification experience and preferably an in-depth understanding of systems and computer auditing.

### Internal Auditor

c£24,000

Constructive advice to managers on the improvement of internal controls is your main objective. To do this you'll be asked to rationally appraise current systems and management policies.

At least one year's post-qualification experience and a clear understanding of information technology and the use of audit packages is vital. Diplomacy and tact are of the utmost importance and the ability to put across your ideas is essential.

The rewards are everything you'd expect from a company of our international standing, while the career prospects are limited only by your ambition.

For an application form and further information please telephone (0483) 757555 ext. 2257 (24 hour answerphone), or write with full CV to The Personnel Department, B.A.T. (U.K. and Export) Limited, Export House, Woking, Surrey GU21 1YB. Closing date: Friday, 4th May 1990.



B.A.T. (U.K. and Export) Limited

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### A RARE OPPORTUNITY TO COMBINE FINANCE AND MARKETING

#### WEST SUSSEX

£30,000 + generous package

The Travellers Medical Service is the largest specialist medical assistance company in the UK and provides a 24 hour service for travellers. It receives calls for assistance from all over the world, monitors the progress of patients in hospital and co-ordinates their repatriation.

This expanding professional assistance company, a subsidiary of a National company, requires a commercially aware accountant.

The Company is marketing led and the successful candidate will play a full role in the dynamic senior management team which will then be prepared for further rapid expansion in a developing market. The appointee will be aged between 30 - 45 and will have the vision and ability to develop and implement operational and reporting systems as well as being responsible for the financial function.

Opportunity for career development will be afforded by the growth of the Company and a long term commitment is required. In the first instance write to the Managing Director, Sarah Meidlinger at: The Travellers Medical Service, Golden Square, Petworth, West Sussex GU28 0AP, enclosing C.V. and a recent colour photograph.



### COMPANY SECRETARY/ACCOUNTANT

HAMPTON COURT

c£25,000 + CAR + BENEFITS

Octagon is a successful and profitable company specialising in the development of prestigious residential and commercial property. They are now seeking a successor to the Company Secretary who is shortly retiring.

This presents an opportunity for an energetic "hands-on" Accountant in the age range 28-40, qualified to at least A.A.T. to assume responsibility for all accounting functions within the company, general administration and statutory secretarial matters. Experience in property development is a positive advantage together with a preference for a small company environment. The successful applicant will be rewarded with a generous salary, fully expensed car as well as a very attractive benefits package.

For further information contact Accountancy Personnel,  
10-16 Castle Street, Kingston, Surrey, KT1 1SS. Tel: 01-541 4555



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A HAYS PERSONNEL SERVICES LIMITED COMPANY

## Portfolio

### OPERATIONAL REVIEW

North London £30,000+car

- Leisure/Property
- Business Projects

This major organisation seeks a high calibre, young qualified accountant who can offer first class technical and business skills to a high profile operational review department. Reporting to the Board, you will have an excellent overview of all commercial activities throughout the Group.

Please contact LIZ OSBORNE on 01-336 9581 quoting Ref: FT19490/A.

### US ACCOUNTANT

Surrey c. £34,000+car

- Qualified CPA
- US Experience

A top quality blue chip plc, based in Surrey, has an exceptional requirement for an American accountant. The individual must be a qualified CPA with significant reporting experience in the US, but should currently be based in the UK. The Group has exciting plans for transatlantic development and this will be a key role.

Contact PIPPA CURTIS on 01-336 9581 quoting Ref: FT19490/B.

### FINANCIAL ACCOUNTING MANAGER

London £30,000 package

- Newly Qualified ACA
- Young Company
- Exceptional Opportunity

The UK subsidiary of an American information technology multinational is seeking a Financial Accounting Manager. The company is in a period of dramatic growth and the role will be to act as the right hand person to the FD with involvement in all aspects of the company.

Candidates must be newly qualified Chartered Accountants with a sleeves rolled up approach and the desire to motivate staff.

Contact JAMES WATKINS on 01-336 9581 quoting Ref: FT19490/C.

### MANAGEMENT ACCOUNTANT

City to £35,000

- Recently Qualified
- Free Ranging Role

This firm of corporate law specialists requires a bright, qualified accountant to work closely with the Senior Partner and other management.

The role will require a high degree of initiative, the main focus initially being the development of the recently implemented time recording system and the production of ad hoc management driven reports. The successful incumbent will possess a high degree of flexibility and commitment, and the ability to adapt and respond to a fast moving environment.

Contact MARK JONES on 01-336 9581 quoting Ref: FT19490/D.

### PROJECT ACCOUNTANT

City £25,000

- Newly Qualified ACA
- Ad Hoc Work

Our client is a rapidly growing financial services information company. They now seek a newly qualified accountant to become involved with project/financial work. The role is of a varied nature and is ideal for someone who is looking for an entry point into financial services. Prospects are excellent.

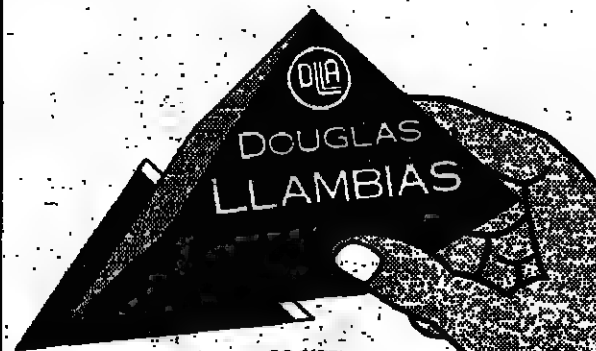
For more information contact DENISE ENGLAND on 01-336 9581 quoting Ref: FT19490/E.

### CONSIDERING FINANCIAL CONSULTANCY?

London and Home Counties  
to £38,000+car.

Recruitment is currently taking place at leading accounting based consultancies with openings for graduate accountants with up to six years post qualification experience gained within blue chip environments. You should be computer literate, and with well developed interpersonal skills.

Write with a full CV and daytime telephone number to COLIN TASEY quoting Ref: FT19490/F.



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- **RESPONSIBILITY** is to the Director of Finance for the development, enhancement, and implementation of new systems, and various finance projects.
- **THE NEED** is for a graduate accountant of proven analytical ability with substantive systems, projects, or consultancy experience preferably from a service, customer oriented background.
- **THE PREFERRED AGE** range is 35-40.
- **REMUNERATION** is negotiable from £40,000 per annum.

Please reply with curriculum vitae in strict confidence quoting reference 7276 to:

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8 Hallam Street, London W1N 6DJ. Telephone 01-580 2924, Fax: 01-631 5317

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## Finance Director Building Services and Products

To £33,000 + car

West Midlands

Key challenge to introduce new approach, improve financial reporting and implement new computer system in recently acquired business with high growth potential.

### THE COMPANY

- ◆ Profitable subsidiary of highly successful plc. Six branches
- ◆ Strong service orientation. Manufactures/installs customised products. \$4.5 million turnover.
- ◆ Substantial growth planned in local and national markets.

### THE POSITION

- ◆ Total responsibility for finance function. Introduce "plc" standards and new computer system.
- ◆ Train and motivate staff. Prepare monthly management accounts, budgets and forecasts.
- ◆ Work closely with senior executive team. Company secretarial duties. Report to M.D.

### QUALIFICATIONS

- ◆ Qualified Accountant, graduate calibre, aged around 30.
- ◆ Two to five years experience from quality plc, ideally in service, building or multiple retail.
- ◆ Good team player and people manager. Confident, committed and keen to work hard.

Please write enclosing full cv, Ref BJ1572 NBS, Bennetts Court, 6 Bennetts Hill, Birmingham, B2 3ST

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## MANAGEMENT ACCOUNTANT

THE MEDIA SECTOR has produced many corporate success stories during the course of the 1980s, few however can match the performance and current status of this particular client. A strategy of shrewd acquisition and tightly focused investment has fashioned a substantial organisation and leader in its chosen market.

As a result of an ongoing policy of reviewing and maximising performance and resources, they now wish to recruit an exceptional accountant who can contribute on both a financial and commercial basis to a broad range of activities. Reporting to the FD the position will involve both traditional accounting issues—development of management information, preparation of forecasts and operating plans, systems development—and diverse project based assignments.

Undaunted by the prospect of hard work the successful candidate, a communicator and diplomat, will be able to draw on several years post qualification experience gained from within a media or FMCG environment. All in all an excellent opportunity to join a top flight management team dedicated to capitalising on the dramatic worldwide developments facing this market in the 1990s.

Please contact Neil J. Hinchwood on 01-629 8883, fax 01-408 0961 or send your cv to him at the address below.



RECRUITMENT CONSULTANTS  
BOND HOUSE, 10-20 WOODSTOCK ST, LONDON W1R 1RP Tel: 01-629 8883

## CENTRAL LONDON

£32-35,000  
+ CAR

## Financial Director

West London

£45k Package + Car

Our client a rapidly expanding organisation in the service sector, operates internationally in a highly competitive market and have developed through a positive acquisition strategy.

A challenging opportunity has been created for a dynamic and commercially aware manager, who as a key member of the senior management team will play a major part in the ongoing development of the company. Reporting to the Managing Director you will be responsible for all aspects of finance in an environment of rapid change and growth. Key priorities will be the modification, development and implementation of financial systems and controls to monitor the changing needs of the business.

Our ideal candidate will be professionally qualified with a proven track record of achievement, including exposure to managing changes in a multi-site environment. Experience in developing systems, working to tight timescales, forecasting, strict cash control reporting and effective credit control policies are prerequisites, together with excellent communication skills and the ability to make things happen.

The benefits package will reflect the importance of the position and personal growth prospects are excellent.

Please telephone for an application form (calls are answered 24 hours a day) or send comprehensive curriculum vitae quoting reference number DP/957 to:



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**S. MIDDX £25,000 + Car**

**Finance Accountant**

Recently established division of a US telecoms group seeks your expertise to control both the financial and management accounting of the UK and European operations. Reporting to the Financial Director, your initial brief will be to implement a computerised system capable of handling a rapidly expanding operation. Ref: 3264A3

Contact The Manager at 42 Station Road, Hayes 01-569 2919  
Or the PQE Specialist advising on this appointment on 01-489 9997

**W. LONDON c£30,000 + Car**

**Financial Controller**

Media production company with a superb product base with which to exploit cable and satellite development offer an exciting opportunity to contribute to executive decisions, manage a large, ambitious finance team and play a focal role in ensuring reporting accuracy. High-profile role within high-profile industry. Ref: 27A04G2

Contact The Manager at 380 Chiswick High Road W4 01-995 3601  
Or the PQE Specialist advising on this appointment on 01-489 9997

**N. SURREY c£25,000 + Car**

**Financial Accountant**

Market leading subsidiary of blue chip manufacturing plc offers excellent prospects to a Qualified ACA/ACCA/ACMA seeking wider experience and greater staff management responsibility. As number 2, oversee the accounting of a £10m to business, supervising eleven members of staff and preparing the monthly Head Office package. Ref: 22104AA

Contact The Manager at 28 Commercial Way, Woking 0483 771445  
Or the PQE Specialist advising on this appointment on 01-489 9997

**WEST SUSSEX to £30,000 + Car**

**Corporate Accountant**

This major insurance company operating throughout Britain offers a key technical management role involving IT development, statutory returns, tax computations and annual business plan preparation. A particularly important aspect will be creative input to the new on-line systems network. Package includes mortgage subsidy, and family BUPA Ref: 58A068

Contact The Manager at 19 Broadwalk, Crawley 0293 547762  
Or the PQE Specialist advising on this appointment on 01-489 9997

**READING £25,000 + Car**

**Asst. Financial Controller**

Broaden your experience and improve your career prospects by joining this American computer peripherals company. Reporting to the Financial Director, you will have responsibility for statutory accounts, US reporting, corporation tax and financial analysis, using a sophisticated computerised system. Career path assured for a Finalist/Qualified Accountant. Ref: 2694CG

Contact The Manager at Unit 5, Brunel Arcade, BR Station, Reading 0734 585588  
Or the PQE Specialist advising on this appointment on 01-489 9997

**MID KENT c£30,000 + Car**

**Financial Director (des)**

This large subsidiary dealing in high technology design and manufacture offers a directorship involving all aspects of management, job and project costing, computerised and manual systems and statutory accounts. An ideal opportunity to use your engineering background to develop staff potential, effect change and produce results. Ref: 61A9A45

Contact The Manager at 25 High Street, Bromley 01-290 6688  
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**FINANCIAL DIRECTOR**

**London Bridge c. £30,000 + benefits**

Our client is an independent business travel agent with offices in the City, West End and outer London.

A financial director is required to supervise the accounts function, assist financial discipline and advise the director on financial strategy for further growth.

Based near London Bridge in refurbished offices you will be awarded with a package tailored to your potential contribution.

**CHIEF ACCOUNTANT**

**Surrey £22,000 neg.**

Our client is an established tour operator with high repeat business. Reporting to the Finance Director, the chief accountant's duties will include day to day management with a department of 5. A succession of projects to be tackled will include enhancement of the computer systems.

You may be part-qualified, soon to be qualified, aged under 35 with some experience of accounting for tour operations.

Modern offices, close to station and parking. Competitive salary offered.

**FINANCIAL CONTROLLER**

**Victoria circa £23,000**

Our client created this specialist tour operator and is still the leader in its niche market.

A financial controller is required, reporting to the managing director. You will prepare all monthly financial reporting and supervise daily routines.

Located in Victoria convenient for station. This position offers a salary according to experience to £23,000.

Apply to Geoffrey Wilkes, SPS Travel Recruitment  
67 Jermyn Street, London SW1Y 6NY  
Tel: 01-630 1214

**Financial Controller**

**Advertising Group**

**Basingstoke**

**c. £30,000 + car + benefits**

Continued expansion of a specialised business-to-business advertising group currently billing £9 million has created the need for a highly motivated, commercially astute Chartered Accountant to play a crucial role in the future growth and prosperity of the company.

Reporting directly to the board, the successful candidate will be expected to contribute to the company's management. Duties will include control over the accounts and administration department with responsibility for the implementation of computer systems together with the development of management information necessary for planning and control.

The position offers excellent opportunities for the right candidate who must be a qualified Chartered Accountant, ideally with prior experience in advertising or a similar service industry.

CV in first instance to: S. Harris, Kempsters, KDA House, Essex Road, Basingstoke, Hants RG21 1TA.

**Kempsters**

KDA House Essex Road Basingstoke Hants RG21 1TA

**JOB OPPORTUNITY**

We require the following capable and experienced person for Weaving Factory in the UK.

- **Accountant** - Master degree in Business Accounting
- 10 years experience with an Accountancy Background including costing and other Finance control works.

A competitive salary and generous benefit are offered.

The candidate should be in the 35-45 age range

Please write with Bio-data to:-

GENERAL MANAGER  
PO BOX 58965  
Riyadh - 11515  
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Note: Résumé will be treated in confidence

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OPPORTUNITY?

Our client is a major force in the UK and International Construction Industry with an unrivalled reputation for quality and excellence.

As a result of a recent resource review a number of opportunities have been identified, at locations within the UK including London, for young qualified accountants wishing to broaden their experience.

Initially successful candidates will assume responsibility for the financial and management accounting of one of our clients business units (T/O £40m+). Thereafter the opportunity will exist to broaden into a wider business management role with the additional responsibility for personnel, office services, site and business administration.

A high level of communication and interpersonal skills is essential.

You will enjoy an attractive starting salary together with a full range of large company benefits including car, contributory pension scheme and private medical cover.

Please send your CV, quoting reference 459 to: Ray Wilcox, Account Director, Riley Advertising, Confidential Reply Service, 159 Hammersmith Road, London W6 8BS.

Listing companies to whom your application should not be forwarded.

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GLASGOW  
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MANCHESTER  
NOTTINGHAM  
NORWICH

INTERNATIONAL APPOINTMENTS

The Food and Agriculture Organization of the United Nations  
invites applications for the post of  
**ACCOUNTANT**  
at its Headquarters in Rome, Italy

- **Duties:** To assume responsibility for accounting and financial reporting operations of the Organization's Credit Union including administration of the computerized accounting system.
- **Essential Requirements:** University degree in accounting or financially related subject and qualification recognized by a professional accounting body such as Institute of Chartered Accountants or Institute of Certified Public Accountants. Five years of progressively responsible professional experience in accounting or auditing, including experience in a bank or financial institution. Experience with dual currency operations and accounting systems and financial statement preparation. Working knowledge of English, limited knowledge of French and/or Spanish. Effective managerial skills, integrity, strict sense of confidentiality, maturity and initiative. Ability to work in harmony with people of different national and cultural background. Willingness to use word-processing equipment.
- **Benefits:** Relocation, tax-free salary, cost of living adjustment, education grant and other benefits of the International Civil Service.

Please send detailed curriculum vitae not later than 6 June 1990 - quoting VA 797-AFD to: Central Recruitment, FAO, Via delle Terme di Caracalla, 00153 Rome - Italy.



## Young Financial Controller

East Midlands

c.£30,000 + Car

Our client, an established high growth plc, supplies petroleum and gas products to both industrial and domestic markets. The appointment of a top flight young graduate to take full responsibility for the accounting function of the UK company is now essential to ensure the continued success of this plc.

You will be a member of the senior management team and report directly to the Managing Director. In addition to the day to day management of the accounts function you will support the MD with strategic financial advice

on acquisitions and business development. Candidates will be aged mid to late 20's with a good honours degree and several years experience as a management accountant.

The reward package includes an excellent salary as indicated, fully expensed company car, pension scheme and assistance with relocation as appropriate.

Please write — in confidence — to Paul Gardner, Ref. 84042, MSL International, Quadrant Court, 50 Calthorpe Road, Edgbaston, Birmingham, B15 1TH.

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## HERTFORDSHIRE TRAINING & ENTERPRISE COUNCIL

### FINANCIAL CONTROLLER

St. Albans

£30,000 + car + benefits

#### The Company:

A newly privatised company, the Hertfordshire Training and Enterprise Council, has a turnover of c.£18m. It aims to help the county meet its labour market needs through planning and delivering training and promoting and supporting the development of local businesses.

#### The Role:

Reporting to the Managing Director, this is an exciting opportunity to join the senior management team and help shape the TEC's future development. The Financial Controller will be responsible for the full range of financial and management accounting activities, including financial planning and company secretarial services. Initially key tasks will be to develop current financial accounting controls and systems and to provide relevant, up-to-date management information. Thereafter a wider commercial contribution will be required.

#### The Skills:

The successful candidate will be a qualified accountant, computer literate with a minimum of 5 years practical experience in commerce or industry. Commercial awareness, strong interpersonal skills and a willingness to adopt a hands-on approach to the role are key requirements. Age is not important, but the experience to be able to make a positive contribution to the success of the TEC is.

#### The Next Step:

Write in confidence with a comprehensive CV, including current salary details, to MD, Herts Tec, c/o 31 Fishpool Street, St. Albans, Herts AL3 4RF

## YOUNG CHARTERED ACCOUNTANT Financial Product Development

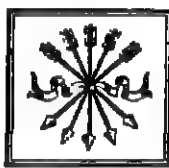
N M Rothschild Asset Management Limited is the investment management arm of the Rothschild Group. The company has a range of successful products including overseas funds, investment and unit trusts; new products are constantly under development.

A young Chartered Accountant is sought who is keen to make a career in investment management. Whilst learning about the business and undergoing thorough training, you will undertake financial accounting routines and company secretarial duties. As soon as you are ready, however, you will also become involved in product development — researching, refining and, in time, initiating new business development in the UK and overseas.

A creative mind and entrepreneurial flair are key requirements, in addition to financial skill and acumen. You must also be able to communicate effectively on financial matters, both orally and in writing. No previous experience in the industry is required.

The attractive salary package includes mortgage subsidy.

Please send a detailed résumé of your experience in strict confidence to: Mrs Jennifer Leaver, N M Rothschild Asset Management Limited, New Court, St Swithin's Lane, London EC4P 4DU.



**N M ROTHSCHILD  
ASSET MANAGEMENT LIMITED**

## Chief Financial Officer

West Midlands

c.£30,000 + Car

A major international industrial group has a small but fast growing distribution subsidiary, where turnover is expected to double in the next two years.

The Chief Financial Officer will join a young management team reporting to the Managing Director. His responsibilities will include accounting and treasury management, and other broad administrative tasks assisting the Managing Director. He will supervise a staff of 12.

Candidates, in their late 20's only, should be qualified accountants from a major international accounting firm or from an international financially orientated company. They should have a minimum of 3 years industrial experience, a knowledge of modern computer systems and strong management skills.

Career prospects include promotion to sister companies, both in the UK and abroad.

Executive Selection Director, Nicholas Angell Limited, 11 Waterloo Place, London SW1Y 4AU.

## HOTEL FINANCIAL CONTROLLER CARIBBEAN

Exception opportunity for a qualified Financial Controller with hotel experience in a newly expanded luxury hotel project on a beautiful, large, English-speaking Caribbean island.

Salary Range - £25,000/£30,000. Please write with full C.V. to:

Hotel Properties, Suite 600, Chesham House, 150 Regent Street, LONDON W1R 8PA

## Major UK plc

### CAREER PROGRESSION

c.£23,000

Wiltshire

### Newly Qualified Accountant

Once qualified it is essential to take your career forward with an organisation that will support you by giving you the authority and responsibility that you need. My client will offer you a first rate opportunity to progress.

As the Planning and Development Accountant you will be attached to a specialist division. You will be responsible for ensuring that the division's planning, budget and variance reporting figures are produced accurately; act as a focal point for queries on planning and budgets; be responsible for totally reviewing accounting/budgetary procedures and the computer systems.

#### SELF STARTER - AMBITIOUS - LEADERSHIP SKILLS

An independence of action will be encouraged provided you can be a good team player. You should be PC friendly and be familiar with database/accountancy packages.

To discuss the position further telephone Stewart Keller. Alternatively forward your Curriculum Vitae or ring for a Personal History Form quoting reference FT/64/SK/B to: Executive Selection Associates (Western) Ltd., 2-4 Welsh Back, Bristol, BS1 4SS. Telephone: (0272) 252200, Fax 0272 252201.

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EUROPE'S BUSINESS NEWSPAPER

مكتبة الصلح



## ARTS

## CINEMA

## Fun fiddling with the facts

Who is Michael Moore and why is he saying these terrible things about Roger Smith? Let us begin at the beginning. Three years ago an unemployed journalist called Michael Moore started shooting footage for a documentary about the closeness of the General Motors plants in Moore's home town of Flint, Michigan. The film, *Roger And Me*, evolved into a free-wheeling attack - comical, satirical, inflammatory - on the company's brutal indifference (so alleged) to the 30,000 job losses that resulted and to the spread of hardship and homelessness through the town.

The film also turned into an on-camera quest for GM chairman Roger Smith. Smith declined to be interviewed by Mr Moore, though the tubby director, who also acts as the film's narrator, chased him from city to city and finally cornered him at a Yuletide company gathering. Their 60-second exchange is preceded by some venomous cross-cutting between Smith's Christmas bromides from the speech platform and shots of a black family being slung out of its Flint home.

The film is snappy, funny, indignant and unpredictable. It won Mr Moore large audiences in America and Best Documentary prizes from both the New York and Los Angeles film critics. But - and this is a taton "but" - it also brought down a minor avalanche of criticism. Why? Because the film was found to have fiddled the facts and fooled with the time sequence.

Fiddle number one. Much of Moore's satirical fire-power is aimed at the doctored urban renewal schemes that followed the GM closings. According to Moore, the shellshocked town of Flint said to itself: "We must create jobs and attract visitors" and built a luxury hotel, a major museum and a state-of-the-art shopping mall. These things were indeed built, as Moore says, and they indeed failed, as he also says. But they were built before, not after, the job losses the film depicts.

Fiddle number two. Ronald Reagan is seen in newsworld footage visiting the town and sympathising with the citizens' plight. The film omits to state that Reagan's visit took place in 1980, long before the big GM lay-offs and indeed before Reagan was even President. Fiddle number

ROGER AND ME  
Michael Moore

THE HUNT FOR RED  
OCTOBER  
John McTiernan

MOUNTAINS OF THE  
MOON  
Bob Fosse

SHOCKER  
Wes Craven

three... But the list could detain us indefinitely. *Roger And Me* is an eye-opening movie not just because it reshapes truth to make a director's socio-satirical broadside but because the film could have been funny and damning without the chicanery. Moore is wonderfully acerbic about the celebrities visiting Flint and weeping their crocodile tears. And he homes in on bizarre local talent like the housewife who earns a living selling rabbits ("Pets or meat" says the sign) or the lady who has set up as a dress colour consultant, intuiting her customers' natural "seasons." The latter's phone call to Moore lets in the film, to say she just realised she has got her own season wrong, is the funniest moment in the whole 91 minutes.

But even gaffs die quickly in a movie where neither the film-maker nor his story can be trusted. *Roger And Me* is the work of a snake-oil salesman with a sense of humour, passing himself off as a qualified doctor. It has an eclectic, fast-cut virtuosity. Beach Boys songs, old commercials, real-life comic vignettes like the garden party where Flint locals are hired as "living sculptures." But when you apply all this razzle-dazzle to the patient himself - Flint, Michigan - you find it neither cures the ailment nor makes any honest attempt to locate its source.

If Sean Connery ever pens his autobiography, "Roger And Me" may be among the short-listed titles. Mr C is currently in the business of outshining not just his former 007 rival but every other screen actor in sight.

For the film-maker, *The Hunt For Red October* is his back and carries it from the murky waters of a routine submarine romp into a

noon-bright human drama. The water slides from this grizzled giant as he emerges snowy of beard and topee. We recognise the dimpled cheeks and the ironising eyebrows. And we recognise the Connery voice, that aromatic burr marinated in 100-old Scottish mists. No nonsense, thank heaven, with Soviet accents.

The movie itself sturdily adapts Tom Clancy's truth-based best-seller about an advanced Soviet submarine and its rebel captain (Connery) bent on defection: a man whose Lithuanian origins lends handy topicality to a pre-glasnost story whose tensions might otherwise have sunk in the thawed hostilities of the Cold War. Will Captain Connery succeed in handing himself over to the West, plus vessel and willing officers? No, if the pursuing Russkies have their way. Yes if CIA agent Alec Baldwin has his, hopping from Pentagon to aircraft-carrier to helicopter to submarine in a game of geo-strategic hopscotch.

The film has an early longshore or two and director John McTiernan (*Die Hard*) seems to have composed his wide-screen images with the small screen in mind. Characters on one side of the frame talk to camera in empty space on the other. But the adventure gathers momentum by the minute, there is a stirring climax and as Mr Connery's sub commander says, "It all reminds me of the heady days of Sputnik and Yuri Gagarin." The difference is that back then Mr C was merely a gleam in the eye of Cubby Broccoli. Today he is an entire vegetable garden in the world movie kingdom, and the most tasty and organically grown in sight.

There is no escaping quest movies this week. After the hunt for Red October and Roger Smith, we search for the sun of the Nile. *Mountains Of The Moon* is directed and co-written by Bob Fosse, hitherto renowned for abrasive modern-dress pieces starring Jack Nicholson (*Five Easy Pieces*, *The Postman Always Rings Twice*).

"Abrasive" is the quality sometimes missing in this period-dressed trip through terrain covered years ago by a memorable BBC serial. That was *Mountains Of The Moon*, this is *Mountains Of The Moon*. It is a huge and in colour. Patrick Bergin and Ian Glen star as explorers Burton and Speke, and among the ques-



Rhoda Britton (with pet rabbit), Michael Moore and deputy Sheriff Fred Ross: all involved in Moore's 'Roger and Me'

tions asked are: Was Speke gay? Was Burton mad? And which one was right about the location of the Nile's source?

Since everyone except possibly Burton's mother soon acknowledged that Speke was right, there is little suspense in the last question. Indeed the film's final act is fluffed. Amid too much Royal Geographical Society infighting we lose focus on who is claiming what, and on how many times Speke goes back to Africa and why Burton does not go with him.

The magic blazes up best in the wilderness: a desert attack of shocking brutality; a fevered, hallucinating Burton at sea in a ritual; an etiolated Speke strapping on his courage like a foreign uniform and tramping off into the next mirage. With a story whose facts are already safely filed by history (unlike *Roger And Me*), even mythopoetic liberties seem pardonable. Fosse adds twenty-odd years to the age of a post-Burton is introduced to ("This is one of your admirers, Algernon Swinburne"); and

he has Burton's wife (Fiona Shaw) eagerly devouring his erotic manual *The Perfumed Garden*, although history suggests the erotic played little or no part in their marriage.

Who cares? Shakespeare fooled around with history whenever the chance presented itself. Nothing is wrong with re-landscaping the past so long as one puts up the sign "fiction" and allows the area to be bulldozed back to truth when necessity comes. *Mountains Of The Moon* is re-landscaping of a vivid, enjoyable kind and the best picture-book costume drama this Easter.

In the season of resurrection, we no doubt had to have something like Wes Craven's *Shocker*. Amputated fingers, electric chairs and raving killers returning from the dead. Some wittily gross one-liners apart ("Finger-lickin' good!" hums the villain after biting off a prison guard's digit), the film is frightful nonsense and tedious to boot.

Nigel Andrews

## Jenufa

## FESTIVAL HALL

On Tuesday the London Philharmonic (sponsor: Lloyd's Bank) brought Glyndebourne's 1989 *Jenufa* to London. The performance was with surtitles (reflected upon the organ casing), but without sets, costumes, or "moves," yet all of the production's most important component parts were firmly in place, and almost all of its shattering power was recalled from the theatre. The allotted place of Janáček's opera in the current South Bank series devoted to Szymanowski ("Poland's Last Romantic") may have been slightly puzzling, but who honestly cares when the concert itself was so enthralling?

Perhaps the most valuable aspect of the occasion was the chance it gave to see and hear - in close-up, and refined to its essence - three characterisations of tremendous honesty, dramatic strength, and musical responsiveness: Anja Silja's Kostelnicka, Robert Alexander's Jenufa, and Philip Langridge's Laca.

The interplay between the three, and indeed between the whole cast, the conductor, Andrew Davis, and the orchestra (on splendid form), was simply spellbinding. Every detail of word-inflection and tone-colouring resonated with meaning, to be then picked up and further shaped by another singing or playing voice. For long stretches the performance developed into the sort of cohesive ensemble - rare achievement! - that can make opera in general the grandest of all the arts, and this opera in particular one of its most life-enhancing examples.

After last summer's first

night I drained my store of superlatives in attempting to describe the gaunt magnificence of Miss Silja's seltone. The concert showed how much deeper Miss Alexander learnt to dig into the title role during the festival run - the singing was now full of subtle, ravishingly tender lyrical nuances, never self-conscious, and freely expressive right across the whole compass of the vocal writing (one or two hints of tightness at the top notwithstanding). In everything except the climactic vocal thunder of Act 3 Mr Langridge's command of Laca's dramatic development proves incomparable: the bitterness laced with passion, the slow growth toward understanding made wrenchingly eloquent.

It was a particular pleasure to find back in place Menai Davies's grandmother, Alison Hagley's Karolka, Linda Ormiston's mayor's mistress, and this country was produced for the concert, and far more effective than his Glyndebourne predecessor. This was the German tenor Peter Straka, alarmingly credible in both the drunken swaggering and the staid forward. For my taste Mr Davis too much softens and smooths the contours of the music - the treatment, slow and reverential, of Jenufa's heartstopping little "Good-night, mother" episode in Act 2 can stand as symbol of his whole approach. Like everything else about the performance Mr Davis's conducting was heartfelt, fully worked-out, and therefore on its own terms unarguably "right."

Max Loppert

## Crux

## LYRIC STUDIO, HAMMERSMITH

The Middle Ages were not - as this play by April de Angelis makes plain - a particularly good time in which to be a woman. Men had the whip hand (literally), and their authority had the formidable backing of the Church. However, there were even then, in 13th century France, courageous groups of women who stood up to break away with the help of various heresies, notably the Doctrine of the Free Spirit.

De Angelis and Paines Plough, the touring company that works closely with writers, confront us with such a group. It consists of four women of contrasting temperaments who have come together in a House of Voluntary Poverty where they live free from male domination in a spirit of sacrifice and privation.

A collection of mediaeval memorabilia hanging from the ceiling in Catherine Armstrong's bare set, chivalry's leg-armour, golden altarpieces, a scale of justice, heavily tilted, and so on, remind us of the period, as do the smocks and wimples, but the essence is metaphorical rather than historical. The London voices, impure vowels and crude earthy speech are all of today.

Yet another play about the condition of women striving and ultimately failing to hang on to their territory? Yes, - and none the worse for that, performed with vigorous commitment by Kathy Burke as Joan the visionary founder, Tina Jones as the prostitute who still from time to time reverts to the game, Anna Kavaney as a nun, and a simple soul who likes doing the chores, and Adele Saleem as Agnes as the religious masochist who finally crosses over to the other side to become a genuine nun.

The power of the Church is made incarnate in the figure of an exceedingly mixed-up Bishop (David Mallinson) and his randy young acolyte (Steve Sweeney). The text they all have to work with is intelligent, indignant and diffuse. It provides more opportunities for random role-play than any deep characterisation or penetration into this fresh angle on the war of the genders. Only at the end, when the House has been shut down and its inmates scattered, does the director (Simon Marks) make us feel that these victimised women really are people.

Anthony Curtis

## Kid Creole &amp; the Coconuts

## TOWN &amp; COUNTRY

Kid Creole is back - and with some new Coconuts. Why did he ever leave us and how did we survive without him? It is hard to imagine that the year will provide a more enjoyable concert experience than being crammed into the Town & Country with 1,500 abandoned spirits and blasted both visually and aurally into carnival time.

The Kid is the bizarre creation of August Darnell, an otherwise sensible English graduate from the Bronx who around 1980 hid behind the outrageous personality of Kid Creole who was never seen in public without a ten strong band and a trio of Coconuts, three pointing, programmed, bimboes. The concept of a Latin lover, with the hottest gauche band in old Havana, stormed Europe and then disappeared. The problem was that the excitement of a concert with the Kid could never be captured on vinyl. As chart buster Kid Creole was a bitter disappointment.

But with a new single, penned by Prince, Kid Creole is back. First on stage comes the band which throughout the mayhem maintains the strictest tempo; then a warm-up sidelinck in a giant sized white golfing cap; then the Coconuts, utulating in on slinky black dresses, long red gloves, and pearls round neck and waist; and finally, in the biggest sombrero south of the border and pink suit, comes Kid Creole. Then it is straight into his theme song "I'm a wonderful thing baby," and the party begins.

Of course the whole thing is a joke, but because Kid Creole never relaxes the macho image, the audience gets the best of both worlds and can feel sophisticated and prurient at the same time. It would not work without a band which can slip from salsa to Dixie-

land to funk to the blues almost from chord to chord. With Latin music all the rage, Kid Creole is a man whose time has finally come.

The audience is ecstatic. It invades the stage to help him with a limbo sequence and shares his anguish. In the impassioned song, "Don't take my Coconuts," he ends the Coconuts, whose dance movements seem based around the old music hall act of Wilson, Keppel and Betty, have gone through many costume changes and are reduced to basics. The end of the Kid, who treats them throughout with proprietorial disdain, sings, thanks to Prince, "You just want me for the sex." It would all be quite disgraceful if it was not for the high spirits, the precise staccato, and the body twitching mastery of the band.

Annie Griffin is "Almost Persuaded" for the last time tonight at the smaller offshoot of the T & C, a couple of miles away at Highbury Corner. Publicity had suggested that this thirty year old American was a prettier version of Hank Wagoner, vocally parodying the ineffable, the three goddesses of country music, Patsy, Lynn and especially Wynette, whose ballad "Almost Persuaded" inspires the evening.

Publicity was way off target. Ms Griffin is a performance artist who spends 90 minutes acting around the theme, using the song of the wife temporarily bewitched by a honky tonk cowboy as the starting point for speculations about cowgirls, farmers wives and feminism. Once you resign yourself to no steel guitars it is a gently bewitching experience.

Anthony Thorncroft

## Look Look

## ALDWYCH THEATRE

Michael Frayn's *Noises Off* was proof of how far a good dramatist can stretch a good idea: *Look Look* goes one further by demonstrating - in just under two hours of variations on a single theme - the perils of pushing just past the audience's comfort zone.

Frayn's theme once more is the deconstructable theatre, his target the theatregoer in all his or her chocolate-munching, programme-scrunching, punchline-crunching glory. From behind net curtains we (the real audience) first become aware of them (the fictitious) as they stalling, stomping and settling into their seats. "We are in the right theatre," inquires one, anxiously. "I thought it was a musical," another moans. From tiered ranks of velvet seats, rows F to I to be precise, they watch and wait, their latecomers - a squabbling family trio, a birthday feast - warmly berated by Stephen Fry's chunky-knuck author, who has already witnessed the massacre of his full stops.

Then comes the interval (theatre before ours) and the welcome promise of some plot as birthday girl Lisa Jacobs is whisked off by drama pupil Steven Macintosh for a little bit of nothing on the side to the huge and distracting consternation of his teacher,

probably a paedophile, and her parents, undoubtedly insufferable.

Their consternation carries into the second act, past the ceremonial rolling back of auditorium seating (designer: "Frank Foster"), into "an extravagant and elaborate theatrical genre in which the author, reduced to mere character: status, wades into the grubby brownings and soda while around him rage suspense, romance, melodrama and comedy in slow, fast and medium motion. "I merely want to tell all to realise your possibilities," insists Fry, for a moment like a Pirandellian author in search of his characters.

The point, if one accepts that there is one, emerges towards the end in a courtroom drama defence of the theatre. It is, we hear, a confrontation, a process of watching and being watched which (grandiloquent offstage whisper) makes us understand that the present is huge and everlasting. Which is more than can be said for the play itself, however wittily Frayn sets about the business of constructing and demolishing the conventions on which it is based.

Basically there is no escaping the fact that what we (the real audience) are watching is a couple of

sketches pasted together by some neat lines and nice acting from a cast who remain for the most part almost perfectly unstirred by Mike Ockrent's energetic production.

Margaret Courtenay has a noble presence as the Lady Bracknell of Row F, pointing to her daughter on all but the play, who metamorphoses after the interval (fours and chairs) into an untouchably chatty Welsh character actress; while Robin Bailey's change from suavey untrustworthy teacher to panic-stricken understudy provides a few minutes of unrestrained hilarity, and Gabrielle Drake's demented raving with a pistol tries the muscle strength of the thriller to a busting point which has Michael Simkins' formerly smooth yuppie philanthropist staggering comically about, his eye streaming with Kensington gore as his girlfriend (Serena Gordon) sublimates her earlier discomfiture by farcically brandishing a whisky bottle.

These are good moments but they remain only moments, in an evening which must surely prove the assured fan club of this celebrity assembly to return to their coaches echoing the play's own line: "This is a head for that!"

Claire Armitstead



## Ten new productions at Covent Garden next season

Despite a £3.3m deficit in 1989-90, which is expected to top £5m by early next year, Mr Jeremy Isaacs, general director of Covent Garden announced ten new opera productions (and eleven revivals) for its season opening in September.

None of the new productions will be lavish: one, *Orfeo ed Euridice* by Gluck, was seen briefly last summer when presented by Komische Oper of Berlin and another, *Fidelio*, started life at the Théâtre Royal de la Monnaie in Brussels last year, but even so it is an ambitious programme. The highlights are Massenet's *Don Quichotte*, performed at Covent Garden for the first time and

Verdi's *Attila*, also making its Opera House debut; Richard Strauss's *Capriccio*, and Steffens and Götterdämmerung joining the current Ring Cycle.

There is one world premiere, of *Gaetano*, a new opera by Harrison Birtwistle based on the 14th century poem. The other new productions are *Carmina*, with Maria Ewing and Kathleen Kuhlmann sharing the title role and another Gluck, *Iphigénie en Tauride*.

Jeremy Isaacs is avoiding new productions of the operatic staples - *Aida*, *Traviata*, *Tosca* - until Covent Garden's new theatre materialises to take them in 1997. He remains optimistic that the Govern-

ment, and the City, will step in over the next few months and rescue Covent Garden from its deepening financial crisis.

Whatever happens seat prices will be raised in the 1990-91 season above the inflation rate. A similar increase in the current season failed to stop paid attendances rising by 3 per cent, to 82 per cent of capacity. The Isaacs strategy is to make Covent Garden busy, popular and ambitious, and then to persuade the Government that it that, compared with other major opera houses, the ROH is a model of efficiency.

Anthony Thorncroft

## ARTS GUIDE

## EXHIBITIONS

## London

The Tate Gallery. Joseph Wright of Derby - a full study of the work of one of England's most distinctive painters of the 18th century, yet one, like his close contemporary George Stubbs, too often dismissed as a mere provincial. Daily until April 22, except Bank Holidays; sponsored by The British Land Company.

## Paris

Musée d'Orsay. The Fragmented Body. Parts of the human body, or the incomplete body form from the ending strand of an exhibition beginning with ex-votos and reliquaries and culminating in a celebration of Degas, Bourdelle, Maffei and especially of Rodin with his masterly transition from realistic to abstract sculpture. Ends June 3, closed Mon, entrance Quai Anatole France 4049414.

Musée Carnavalet. Antique bronzes. Some 400 statuettes bring to life the Gallo-Roman world up to the 6th century. Closed Mon, ends July 1 (4872313).

Grand Palais. Pre-Columbian art in Mexico (1500bc - 1521ad). Closed Tue, late closing Wed. Ends July 30 (42895410).

## Brussels

Musée Royaux D'Art et d'Histoire. The Enigma of the Easter Islands. Closed Monday, ends April 29.

Musée d'Art Moderne. Retrospective of the Belgian abstract-expressionist artist Englebert Van Anderlecht (1918-1960). Closed

## Monday, ends May 13.

## Ghent

Museum voor Schone Kunsten. Flemish Expressionism in a European Context (1900-1930). Closed Monday, ends June 10.

## Antwerp

Koninklijk Museum voor Schone Kunsten. Belgian Painters of Country Life. Closed Monday, ends April 22.

## Amsterdam

Museum van Hedendaagse Kunst. Beeldenstorm. Anno 1990 - Contemporary Dutch Artists. Closed Monday ends April 23.

## Vienna

Palazzo Grassi. Andy Warhol Retrospective. Until May 27. Museo Correr. Jacopo Palma il Giovane (1548-1628). On show for the first time is one of the two albums of Palma drawings owned by the 18th century collector Antonio Zanetti (the other is in the British Museum) recently acquired by the museum, together with a selection of paintings, mainly of biblical and mythological subjects. Ends April 29.

## Rome

Braccio di Carlo Magno in Piazza San Pietro: Michelangelo and the Sistine Chapel. This exhibition marks the end of a 10-year stint by Vatican restorers on the ceiling of the Sistine Chapel and the beginning of an estimated further four years' work on The Last Judgment. Open every day except Wed and on Sat from 9.30am to 11.00pm. Ends

## July 10.

## Madrid

Museo Arqueológico Nacional. Art in the court of Naples in the 18th century. Ends May 6.

## Barcelona

Museo Picasso. Cubist works belonging to the National Gallery of Prague - Kramar Collection. The show includes 17 paintings by Picasso together with an important selection of works by Czech and French artists. Ends April 23.

## Berlin

Städtische Kunsthalle, Budspester Strasse 42: Lasar Segal (1891-1967) around 350 paintings, drawings, sculptures and graphics of the Brazilian painter, born in Wilna, are to be exhibited until April 30.

## Munich

Landesmuseum. Marc Chagall (1899-1965).

## Saarbrücken

Moderne Galerie. Growing on the Move. Retrospective of Paul Elie (1879-1940).

## Vienna

Kunstforum. Works by the Romantics, ranging from Caspar David Friedrich to Adolph Menzel.

## New York

New York Public Library. More than 125 documents of the Abolitionist Movement, including pho-

tographs, letters and rare books, display the spirit and drive of the long effort to free the slaves. Ends Sep 15.

Jan Krugier Gallery. Graphics from the Marina Picasso Collection are on display under the title Picasso's Women, until April 23. 41 E. 57th (755 7288).

## Washington

National Gallery. A joint Soviet-American collaboration brings together Matisse's fruitful and arguably pivotal work in Morocco during his visit in 1912-13 including 23 paintings and 45 drawings, among them the famous Moroccan Triptych from the Pushkin Museum, never before exhibited in America. Ends June 3.

National Museum of Women in the Arts. The first major retrospective of the work of Dame Elizabeth Frink includes 60 sculptures and 25 drawings.

## Chicago

Chicago Historical Society. A special exhibit of Frank Lloyd Wright's designs for art-glass windows, furniture and silver shows why the details completed the Wright look. Ends June 17.

## Tokyo

Tokyo National Museum. National Treasures of Japan. Painting, sculpture, calligraphy, craftwork, archaeological artefacts from prehistoric times to the Edo Period. Opens April 10. National Museum of Western Art. Bruegel and Dutch Landscape. 38 paintings on loan from the National Gallery in Prague. Closed Mondays.

## COMBAT STRESS

Perhaps the bravest man I ever knew...

and now, he cannot bear to turn a corner

Six-foot-four Sergeant 'Ty' GYR, DCM, was perhaps the bravest man his Colonel ever knew. But now, after seeking service in Afghanistan, being body-tagged and ambushed in Northern Ireland, Sergeant 'Ty' cannot bear to turn a corner. For fear of what is on the other side. It is the bravest man and woman from the Services that suffer most from mental breakdown. For they have tried, each one of them, to give more, much more, than they could in the service of our Country. We help them at home, and in hospital. We run our own Convalescent Homes and, for the old, there is our Veterans' Home where they can see out their days in peace. These men and women give their minds to their Country. If we are to help them, we must have funds. Do please help us with a donation, and with a legacy too, perhaps. The debt is owed by all of us.

"They've given more than they could - please give as much as you can."

To protect these concerned, this is an amalgam of several such letters of Pensions to our care.

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BROADWAY HOUSE, 100, BROADWAY, LONDON W1C 2JG. TEL: 01-463 6233

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## FINANCIAL TIMES

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Thursday April 19 1990

## A policy for gas emissions

THERE IS a danger of the wrong signals emerging from the international conference on global warming which concluded yesterday in Washington. President George Bush, who called the conference, told the assembled dignitaries that more research was needed into climate change before the world rushed into radical and expensive measures.

At first sight, President Bush's warning might appear to be unexceptionable. It is a welcome antidote to hysterical fears that vast tracts of land will disappear under the oceans in the foreseeable future as greenhouse gases warm the atmosphere and melt the polar ice caps. The world's scientific community is not united on the threat posed by the greenhouse effect. Some scientists still doubt whether prolonged warming is taking place, while others question whether human - as opposed to, say, solar - activity is the underlying cause of higher temperatures.

While many climate experts are convinced that industrial processes - and in particular carbon dioxide emissions caused by burning fossil fuels - are contributing to a rise in the world's temperatures, few are prepared to make categorical predictions. No-one can forecast at present the timing or extent of the impact on particular regions.

## Disappointing tone

President Bush's cautionary note is a reminder of all that has gone wrong in the world since the tone of his remarks disappointed both environmentalists and some European Ministers. And one is of considerable importance, because the debate about global warming is delicately poised. The world's governments are in the middle of a round of international meetings - in which this week's gathering in Washington is one - which will culminate this November in the Second World Conference on Climate Change.

It is still unclear whether this process will result in clear governmental commitments to combat global warming. But the hints now emerging from the US that the world's biggest emitter of greenhouse gases is preparing to sit on its hands is

not a good omen. Pragmatists like President Bush are right to be concerned about the costs of cutting emissions of greenhouse gases. Effective action would have to address two activities, energy and transport, which are fundamental to all industrial processes. One estimate prepared for the British Government suggests that it would cost \$130bn to cut the world's carbon dioxide emissions by a fifth by the year 2010 - or 0.5 per cent of world GDP at the time.

## Huge transfers

Moreover, newly industrialising countries like Brazil, India, Mexico and China would expect huge transfers from the industrialised world in order to reduce their dependence on fossil fuels. And with some justice: for the industrialised world is in a weak position to ask developing countries to forego the benefits of a fossil fuel based economy which it has already enjoyed itself.

Yet it would be a mistake to be mesmerised by these problems. It should be perfectly possible to agree on a two-track response - more research into global warming, as the sceptics demand, and actions to stabilise and then gradually cut greenhouse gas emissions over the next 10 to 20 years.

Promotion of energy conservation; encouragement of cleaner fuels for motor transport; the phasing out of chlorofluorocarbons; conservation of tropical forests; more rational energy use in eastern Europe; the transfer of energy efficient technologies to developing countries; programmes like these would be doubly beneficial. Not only would they help to reduce greenhouse gas emissions, they would also have a host of advantageous secondary effects.

It is also easy to be misled by the global nature of the problem. Seven countries - the US, Soviet Union, China, Japan, West Germany, the UK and Poland - account for more than two-thirds of all carbon dioxide emissions. Agreement among even a significant subset of these or among say, the countries in the European Community would be an important breakthrough.

## Undoing the predators

THE anti-takeover bill passed this week by the state legislature of Massachusetts in response to BTR's \$1.6bn hostile bid for the US industrial group Norton is symptomatic of a wider malaise over the way in which capital markets in the English-speaking countries influence the shape of the industrial structure.

More than 40 states in the US now have anti-takeover legislation offering protection to incumbent management and Wall Street is held in exceptionally low public esteem. In Britain industrialists have been unusually outspoken in their hostility towards the City. The Labour Opposition, meantime, has pledged to change competition policy so that the burden of proof will be on the predator to show that a given takeover is in the public interest.

This disaffection with hostile takeovers is understandable enough. In Japan and West Germany they are virtually unknown. In Britain and the US, on the other hand, predatory activity in the capital markets is often better rewarded than industrial innovation. Many of the raiders appear, at best, to offer no more than financial skills to the companies they threaten to acquire. Yet the banks, operating in an increasingly competitive environment, have been happy in their pursuit of fee income to finance raiders whose records range from the dismal to the non-existent.

## Opportunistic climate

In this opportunistic climate simplistic definitions of shareholder value have been placed before the more durable values that underpin the German and Japanese growth miracles. Post-acquisition earnings are boosted by pension fund stripping and other destructive breaches of implicit contracts. The litany can be extended at will. Whether it provides a justification for draconian anti-takeover legislation is another matter. For all their disadvantages hostile takeovers remain an important link in the chain of managerial accountability in the English-speaking economies. In their absence who is to discipline ineffective management?

In West Germany and Japan the banks played a key role in the second half of the 19th century in helping domestic industry catch up with the more advanced industrial powers. They played an equally important role in industrial reconstruction after the war. Such interventionism made sense in the absence of a well developed domestic financial system.

Potential remedy Today, in a remarkable reversal of historical roles, Britain and the US have problems of competitiveness in relation to West Germany and Japan - made worse, some claim, by the over-sophisticated set of these or among say, the countries in the European Community would be an important breakthrough.

If you ask participants at meetings of the Group of Seven Ministers or the Deputies about what takes place they will talk about examining economic indicators, comparing domestic demand in different countries, or the adequacy of world savings. That is they will talk about anything other than exchange rates.

Yet it is exchange rates which brought the predecessor of the G7, the Group of Five, into prominence at the Plaza meeting of 1985 that was called to give a downward kick to the dollar. They also brought the G7 itself into the news at the meeting of the Louvre Accord of early 1987, which was designed to stop the dollar's descent from going too far.

Indeed, it is the residual exchange rate co-operation still practised at the G7 - though diminished from the days of the Plaza and Louvre - that gets under the skin of the critics and leads to repeated calls to wind up the Group.

It must be accepted that the whole G7 co-ordination process in general, and exchange rate co-operation in particular, have been hampered by two big intellectual mistakes.

● They have been focused around the bogus problem of current payments imbalances. This approach takes as a norm a zero current account deficit, with no net international borrowing or lending. The Japanese and German payments surpluses, and the US current deficit (along more recently with that of the UK) have therefore been treated as pathological; and exchange rate objectives have been tailored towards remedying them.

● Secondly, exchange rate policy has taken too much the form of intervention or jawboning; and the more difficult task of altering domestic monetary policies to underwrite the desired exchange rates has been dodged.

● The Japanese and German surpluses were, in fact, a source of world savings; and now that they are on the point of dwindling the world is seeing the result in the shape of higher real interest rates. A more appropriate model, avoiding both mistakes, would be for the G7 - or more realistically the Group of Three, ie, the US, Japan and Germany - first to agree on whether world monetary policies need to be tightened to avoid inflation, loosened to deal with an economic downturn, or simply kept on an even keel. If the verdict is for tightening, those countries with weak exchange rates, relative to the target band, should tighten more than others. If the verdict is in favour of loosening, then the countries with strong currencies should do most of the loosening. (Unfortunately, the short-cut method of using the Mark as the currency anchor, employed in the EMS, is not available on the global stage.)

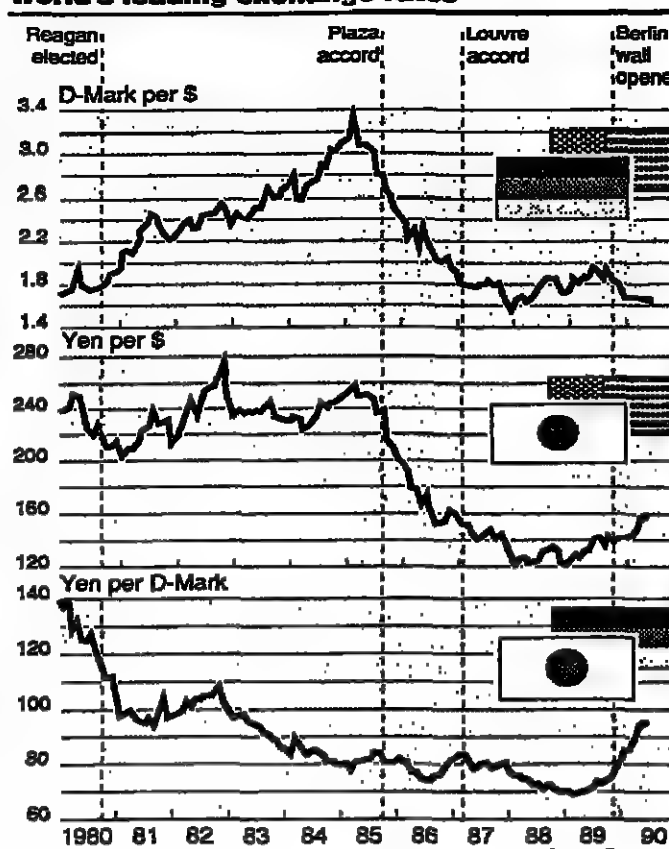
Another alleged deficiency of the G7 process is the absence of an international influence on fiscal policy. But this is no deficiency. Discretionary fiscal adjustments are much overrated. Both instruments of stabilisation and as long-term corrections for inadequate or excessive savings. The best counsel is still to budget for a balance over a whole economic cycle, but to take cyclical disturbances and other shocks in

## ECONOMIC VIEWPOINT

## Keep G7 on its toes

By Samuel Brittan

## World's leading exchange rates



one's stride. Fiscal policy is inherently, moreover, a domestic political matter, where international pressure is likely to be least effective while monetary policy, by its nature, is highly sensitive to international conditions.

One problem with both the international monetary approach just outlined, and the G7 process as it has actually

bodies gravitate towards FEEEs, because their members have been brought up to be pre-occupied with current account "imbalances." But they might still be very misleading if the ultimate effect of nominal exchange rate changes is on relative inflation rates rather than on the balance of payments.

Some of the pernicious

## Appropriate Exchange Rates

	Purchasing power parity (PPP)	Fundamental equilibrium exchange (FEER)
DM per Dollar	2.54	1.80
Yen per Dollar	208	115
DM per Yen	3.50	2.85

Source: PPP rates from Goldstein Sachs; FEER rates from Simon Wiesner-Lewis REER

operated, is to select the target bands or reference ranges for exchange rates. To give an idea of the diversity of opinion I have listed in the table estimates of appropriate exchange rates on two different bases. The Purchasing Power Parities (PPP) are designed to equalise prices indices of internationally traded goods and services. The Fundamental Equilibrium Exchange Rates are based on international trade elasticities and "normal" capital flows.

Behind the two approaches are very different visions of how the world's economies interact. The Group of Seven, the IMF and most international

aspects of current beliefs can be seen at work in one piece of accounting "imbalances." But they might still be very misleading if the ultimate effect of nominal exchange rate changes is on relative inflation rates rather than on the balance of payments.

Even without further progress, the G7 can perform a useful function in dampening the more extreme over-shooting of currencies, such as the pound in 1989-90, and the overvalued dollar of 1984-85, which were overvalued on any theory. It is worth keeping the G7 on call to deal with such emergencies, as well as with the more ambitious task of working towards a world monetary order.

## BOOK REVIEW

## Cosmology of the invisible

THE FIFTH ESSENCE: THE SEARCH FOR DARK MATTER IN THE UNIVERSE  
By Lawrence Krauss  
Hutchinson Radius, £16.95

How satisfying it would be to resurrect those learned men of the Inquisition who threatened Galileo with torture in 1633; and to expose them to the triumphs of modern cosmology.

They would be forced to see, not merely that the earth moves as Galileo proclaimed, but that it cannot possibly be the centre of the cosmos. Some 100bn stars make up our own galaxy and 100bn galaxies exist in the visible universe.

The big, earthbound telescopes such as the 200 inch Mount Palomar instrument in California have long since photographed the nearer galaxies as great spinning discs or Catherine wheels with trailing limbs. Soon, the Hubble telescope - which is to orbit the earth - may find direct evidence of other planetary systems among these multitudinous stars.

Remarkable as these discoveries about the extent of the universe have been, they would astonish and discomfit our 17th-century guests much less than the reaches of modern theory.

Now it seems that although the earth is the merest speck in the visible universe, those billions upon billions of blazing galaxies represent only perhaps 1 per cent of everything that is there. The extra 99 per cent of matter is "dark," so we cannot see it, but it must exist, according to Lawrence Krauss, a Yale university physicist, to explain the way in which the galaxies bunch and whirl together.

Or perhaps our total universe (bounded in time by 10bn years or so since the Big Bang and bounded in space by the distance light could travel during that period) may have been just a tiny bubble of energy and matter in an unimaginably larger explosion? By now the grand inquisitor would surely be bolting with scepticism.

"Let us accept," he says, "your evidence of distant galaxies. You say that the farther stars appear redder than they should because they are moving away from us and presumably from each other. If your learned men are right about this, it does indeed appear that the universe must be expanding. Perhaps it follows that all matter must once have been in the same place, an inferno in a grain of sand held between the fingertips of the Almighty. You may even be right that the microwave radio signals that you say emanate from every corner of the sky are the fading echoes of that 'Big Bang'."

"But to argue about matter so far undetected, or the condition of the universe a billionth of a second after its creation is repugnant to the logic even of your strange new fashion of thought called science."

For those similarly puzzled, Krauss offers a sort of Cook's tour of the latest frontiers of cosmological theory, attempt-

ing to show how recent observations of the very largest structures, and the puzzles they set, must be reconciled with evidence about the very smallest sub-atomic particles of matter, as described in Quantum Theory.

His large scale puzzle is that the force of gravity is too weak to account for the observed concentrations into clusters of galaxies. Deductions about the force of the Big Bang, based on the speed with which far off galaxies are receding, suggests that matter should have been blasted more evenly - as gas and dust - throughout available space. Krauss explains all this carefully, but he lets the intellectual scenery flash past at a bewildering pace. Ancient ideas of creation, Einstein's Theory of Relativity and Quantum Electrodynamics Theory have all been traversed by page 42. But this is just background: Krauss wants to explain that if gravity is too weak to explain what we see, there must be some invisible binding agent holding the stars together - probably huge amounts of cold matter, emitting no light, but exerting a powerful gravitational pull on the hotter stars. What is it and where did it come from?

This takes the reader to the very edges of knowledge where the elementary particles of matter split, disappear and reappear from the void or may be melted into pure energy. Observation of how these particles behave in terrestrial experiments (including giant accelerators) have enabled theorists to build computer models of the whole expansion of the universe from a split second after Big Bang to the present. When these simulations predict a night sky similar to what we actually see, the excitement of the chase becomes intense. What else was right about these models?

Laymen may be less interested in the "correct" answer than in the methods now being used to probe the furthest limits of speculation. Krauss is an able physicist reporting from the front line, often conveying the excitement and uncertainties of the campaign. So it is a pity that he sometimes perpetrates such sentences as: "Another more exotic scenario could alter the nucleosynthesis constraints on baryon densities observed today." This vulgar trick of describing speculations as if they were noble truths awaiting the homage of facts is just the kind of error a seventeenth century inquisitor would recognise and jump on.

Max Wilkinson

## Let the good times roll

■ Two weeks ago, at a party in Hell in Devon, a place of much beauty, creativity and past iniquity, there convened a group of environmentalists, new agers and entrepreneurs to contemplate the subject of business as the cutting edge of the 1990s.

From which there half emerged a then, based not only articulated by Jonathan Porritt, about to leave the Friends of the Earth for pastures that might be politically green. This is that the decade just under way is more likely to resemble the 1990s than the two which succeeded it. The arguments include a rebirth of idealism and activism, after 20 years of self-tenderness, and a greater tendency towards honesty rather than ideology. This might be most apparent initially in an advertising industry now more concerned with information than with image. Some of the initial attempts to try this out - such as Rover's now withdrawn commercials - have not got it quite right.

A 1990s renaissance is, of course, devoutly to be desired and not only by those with stocks of flared jeans, mini-skirts and Avengers-style cat suits (all coming back). In fact, it is almost certainly already happening. The star at Darlington was Anita Roddick of the Body Shop, whose environmental activism marks her out - and this is meant as a compliment - as a child of the 60s who happens to have great commercial acumen.

By this same token, the progressively falling commercial and financial icons of the 70s and 80s, whom we will not embarrass - or attract litigation - by naming, seem to have left a general legacy of tarnished financial techniques and vulgar demand, but not one of charity or social and political engagement. In popular music, of course, the trend has long been appar-

## OBSERVER

ent, as semi-geriatric groups play their old (and good) songs to audiences no longer exclusively made up of ageing hippies. A necessarily subjective judgment, though fortunately shared by our music critic, is that the star turns in the Mandela concert on Monday night were Neil Young and Bonnie Raitt, of whom there have been a few. My personal unrivalled collection of Dylan tapes and records may yet attract the attention of Sotheby's, but as a child of the 60s, greed will not tempt. They will be played until they break.

## Pink elephant

■ Not everything from the 1960s was beautiful, though a lot was psychedelic. There is no worse example of brutalist architecture than the Elephant and Castle shopping centre in south London. Incidentally, someone has painted it a shocking, even hallucinogenic, shade of pink, but it is not a practical joke. The Elephant, built, naturally, in 1964, is one of the country's least successful shopping centres. "It's been a disaster - a real white elephant," admits Chris Woodhouse, investment manager for UK Land, the small property company which bought the site from Land Securities a year ago and claims responsibility for the lurid paint job.

The Elephant shopping centre is the depressing focal point of an unattractive network of major roundabouts, dingy subways and decaying 1960s architecture. It is redeemed only by the best pizza house in London. During its 25-year life, the Elephant has never been fully let, and it has never been repainted. UK Land wanted to put both faults right. "We wanted to make a statement that we were doing something about Elephant and Cas-



"It's the gas man"

tle," says Mr Woodhouse. "You can only paint an elephant three colours: grey was no better than before, we didn't think white would be appropriate, and that left pink." The inevitable advertising campaign ("pink elephants have more fun") is designed to draw in the punters.

Printable descriptions of the colour vary. Urban Space Management, which is putting UK Land's plans into action, calls it "a sharp Schiaparelli pink." Mr Woodhouse is blunter: "It's outrageous," he says. "He was born in the 1950s, and thus qualifies as a child of the 60s."

## Velvet kitsch

■ The decade was not a unitary piece but in the beginning a continuation of the 1950s, when there were very large cars and Elvis Presley. The best place to sample pre-history is the Darwinian restaurant called Chuy's on the outskirts of Austin, Texas. Not only does it offer superb Tex-Mex food, which is superb, and since they reify the beans, not given to excess or toxic waste,

but it is a haven of kitsch - from the countless chrome hub-caps which adorn the ceiling of the main eating room (dining is too pretentious) to the juke-box. But, above all, it is a shrine to Elvis. There are pictures of the Lost Idol everywhere - generally in his younger, shimmer days; even one in velvet, the ultimate accolade. The message is, of course, Elvis lives. Even George Bush liked the other day about getting a phone call from him.

## Blackened words

■ While Thatcher still reigns, and with Reagan, on whom the 1980s left only a negative imprint, in eclipse, it is not surprising that revilement is most prevalent in the US (apart from east Europe, but that is a later story). The Village Voice of New York recently produced, under the headline Life in Hell, a list of forbidden words for the 1990s. Among the best are:

Baby boomer; Betamax; bimbo; celebrante; co-dependence; cruisesandwich; dancer; daze; happy; dramedy; dry beer; go for it; gorbly (surely some mistake?); high concept; hyper anything; infotainment; just say no; male bonding; neo anything; pictiary; power breakfast; rambo; shop till you drop; sound bite; spin control; tough trance channeling; wannabe; and last, but not least, yuppie.

## Blue suede

■ But do not think that east Europe is unaware of the material symbols of the 1980s. An East German lonely heart put the following in a London classified ad column: "What a cold and lonely night this will be. Please free this desperate training shoe from its locker. I need you, xxxx Freudenberg GDR."

Jurek Martin

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مكتبة الجول



EUROPE is facing a critical choice over the future of natural gas: whether to force open pipelines and allow free competition among gas suppliers, or whether to continue allowing a few territorial monopolies to control the industry.

There appears little to choose between these stark alternatives. European Community competition policy is inconsistent with the current structure of the industry.

Europe's big chemical companies claim they can make huge savings if only they can negotiate gas purchases directly with producers. Yet the pipelines and the oil companies strongly oppose allowing gas-to-gas competition through mandatory open access - forcing pipelines to transport gas for a fee.

The issue is important because it could affect whether gas consumption grows rapidly at a time when European environmental concerns make gas ever more attractive.

Mr Jonathan Stern, a gas specialist at the Royal Institute of International Affairs, says control of gas by a few big players is an anachronism and doubts whether the industry will be able to deliver large extra quantities of gas at the right price. "The industry is about to move on to a new era," he says.

The transmission industry, however, says that allowing industry to contract directly for gas would erode their markets and end their ability to sign long term purchase agreements. This, they say, would jeopardise future multi-billion dollar investments, halt projects and sharply reduce the security of supply.

Are the transmission companies merely defending their patch? Or does Europe's gas supply face a genuine threat from reform?

EC energy ministers in October deferred a decision on a draft proposal to force pipelines to transport gas for others. Currently, they act as a gas merchant, purchasing nearly all gas passing through the pipelines and reselling it to customers. Reform measures are now under consideration by the European Parliament and ministers are due to meet again in May.

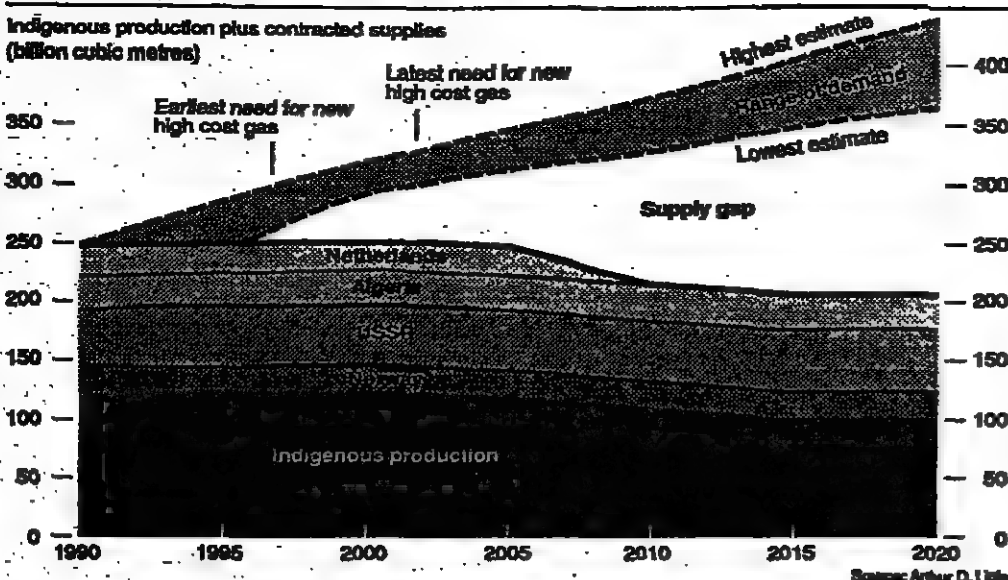
In 20 years natural gas has more than tripled its share of West European primary energy supply to about 18 per cent. About half the supply is indigenous to countries where consumed, while the balance comes from the Netherlands, Norway, Algeria, and the Soviet Union.

Unlike oil, which is loaded onto barges shipped anywhere, and sold for the going

The European gas industry is controlled by a few. Steven Butler on reforming a market anachronism

## All change ahead

### European gas supply and demand



price, most gas is transported in dedicated pipelines serving defined geographic markets, on the basis of contracts lasting up to 25 years.

The gas contracts split the risk of volume and price between the pipeline and the producer. The pipeline agrees to pay for, say, 80 per cent of contracted volume even if delivery falls short, while the producer takes a price linked to traded oil products, ensuring that gas can always compete against the alternative fuel. Yet gas prices are not linked even theoretically to an efficient long run marginal cost of supply nor is there direct gas-to-gas competition.

Cefic, the federation of European chemicals companies, says that in a free market, as producers competed, prices would eventually drop by 35 per cent and gas's share of the energy market would rise by 50 per cent. Cefic notes the abundance of gas reserves in and around Europe. It points to the US experience, with its open access system, and the comparatively low industrial gas prices.

Yet even Mr James McKinnon, the UK gas regulator and a natural friend to open access, says that the debate is fairly evenly drawn. He points to the lack of integration among national gas networks, the bewildering plethora of indus-

trial structures in individual countries - ranging from the integrated gas monopoly in France to the unregulated German market that has 29 transmission companies - and, reflecting on his own experience with British Gas, the formidable political, legislative and regulatory effort required to introduce competition on an American or a British model.

"The British Gas situation is a kind of microcosm," he says. "Even in one country it has been extremely difficult. The EC could take the initiative but would encounter powerful entrenched interests."

The proponents of change say that Europe's abundant gas reserves create a buyers market in which producers will anxiously bring more gas into production even at lower prices. Abundance of supply was a central assumption in a study for the EC carried out by Coopers and Lybrand, who suggested this was a precondition for open access to work. Otherwise a multiplication of buyers negotiating supplies could result in bidding up prices.

However, almost by the month, as the environmental movement gathers pace, analysts are revising upward estimates for the speed of demand growth, especially as gas becomes a more economic fuel for power generation.

"The European gas market is facing the prospect of very high relative growth," says Mr Nick White, of Arthur D Little, the consulting firm advising some of the gas companies. "Before too long Europe will need new trunk lines to move Russian gas."

Arthur D Little projects an increase in demand of between roughly 20 and 50 per cent by 2010 to as high as 350bn cubic metres a year. Any increase in demand above 50bn cu m a year, it believes, would have to be met by new high cost gas supply. Projections by leading oil companies are similar.

This would involve multi-billion dollar investments to bring capacity on stream, including a new Soviet supply line from Siberia, pipelines across the North Sea and the Mediterranean, and liquefaction plants in Nigeria.

The chemical companies argue investment on this scale would materialise under open access because this scale of investment takes place in other industries without secure markets.

But with risks going up as a result of less security of off-take, projects would almost certainly go ahead more cautiously and only on the expectation of a higher price. Financing costs would rise.

At the same time alternate fuels provide a cap on natural

gas prices and higher prices imply lower demand and fewer or smaller projects.

Troll, the \$6bn Norwegian gas field, may have gone ahead even without a long term take or pay contract, but there is no experience anywhere in the world to indicate that it would have, even in the US, where open access was introduced in a period of falling demand and excess production capacity. In the US today, even with a developed gas spot market, financing for trunk pipeline construction is proceeding only with long term, booked transportation agreements, and doubts are growing over whether enough production investment will materialise to avoid a shortfall in deliverable gas later this decade.

This amounts to an argument against underpinning the pipeline's ability to honour current contracts or negotiate new supplies. Yet Mr Stern, while accepting this, still takes the view that if spare capacity exists in pipelines, why should pipelines not offer space to others for a fee? Whether this would bring economic benefit to the EC is impossible to know, he argues, but it would be consistent with economic policy of offering more choice to consumers.

"If the end result is that consumers will pay more, then they won't do it," he says. "It is not going to mean very much very quickly."

Under current EC competition law, refusal to allow spare capacity to be used could be interpreted as an illegal abuse of a dominant market position.

Ruhrgas, the German pipeline company, suggests the appropriate way of liberalising the market would be to lift restrictions on pipeline construction and gas purchasing.

Indeed Wintershall, a subsidiary of the German chemical group BASF, is proposing to build a pipeline in the backyard of Ruhrgas to serve its own plants and potentially to compete for Ruhrgas customers. The demarcation agreements among German pipeline companies which prevented direct competition will expire in 1994, and these anti-competitive agreements look unlikely to be renewed.

Change is coming to the industry, regardless of what the EC decides. The EC will have enough difficulty ending statutory monopolies that are the plainest impediment to competition. Mandatory open access may appear an obvious way to shortcut this process but the risks are high and the results uncertain, particularly in view of the US experience in which a decade of non-stop regulatory turmoil has yet to end.

### America's changing self-image

## What next for the US?

By Herbert Stein

The United States is in a peculiar condition of indecision and inertia, suspended between thinking that nothing needs to be done and thinking that nothing can be done.

On the one hand, we are seeing the achievement of objectives that have dominated our attention for half a century. Abroad we witness the disintegration of our mortal enemy, aggressive totalitarianism. At home we are enjoying our longest continuous economic expansion.

These successes are seen by many as the ultimate proof of our virtue and of that of our system: we have returned to the Garden of Eden, where we can remain forever if we only resist the temptation to eat the apple of increased taxation.

On the other hand, we feel that our leadership in the world is passing and that our ability to deal with our problems has shrunk severely. In the minds of many Americans we are no longer the Number One economic power and are falling farther behind. We are dependent on the inflow of capital from Japan and Europe and are running a distress sale of cherished assets, like the Rockefeller Center.

President George Bush embodies both of these attitudes. He inherits the idea that Reaganism has solved all our problems and that it is now sunrise in America. His own vision of "a kinder and gentler nation" sounds like the wish of a dancing-school teacher that the children would be a little nicer. At the same time he is doubtful of our ability to accomplish even the little that he sees as being necessary. The only memorable line from his inaugural address was, "We have more will than wallet."

But neither of these attitudes is valid. We do have problems, and we do have the capacity to deal with them - at least more effectively than we are now. More important, in my opinion, these negative attitudes will not continue to dominate American policy in the 1990s.

The list of conditions in which America's problems can be found is fairly obvious:

- There are a number of people, perhaps one per cent of the

total population, who constitute an "underclass." They have high rates of illegitimacy, illiteracy, crime and drug addiction and alienation.

- There is another group, perhaps 10 per cent of the population, that is poor by American standards, and this fraction, after declining until about 10 or 15 years ago has been essentially static since.

- Crime, especially drug-connected crime, has taken over sections of our large cities and threatens life outside those battle-zones.

- The condition of education in America is bad by international standards, and by the expectations of many people who had their schooling in a previous generation.

- Countries in central and eastern Europe are trying to create free societies. Their success is of interest to us, economically and politically. Success is not assured and will depend in part on the actions

year than would be required to maintain the 1989 level. To say that we do not have the money to deal with our national and social needs means only that we would rather not give up a small fraction of our increased consumption.

Operationally, this means that politicians are afraid either to cut the huge Federal transfer payments to people who are not poor - for retirement, for medical care of the elderly and for assistance to farmers - or to raise taxes.

Money by itself will not solve our problems. Intelligence, compassion, and a determination to tackle vested interests will also be needed. But money will help. In the political process it is the unavailability of money impedes action.

The American people will not continue to be satisfied with a government that offers them only the prospect of more and more consumption. They will be bored and welcome a call to a more exciting and uplifting political life. Politicians will come forward to meet this desire. We went through this at the close of the Eisenhower Administration. In many respects the eight Eisenhower years were great years.

But they were without great national issues or goals. Even President Eisenhower recognised this and, characteristically, set up a commission to discover what our national goals should be. Presidents Kennedy, Johnson and Nixon appreciated the national desire for activism and national purpose and tried to identify themselves with it.

Opinion polls show rising concern with our social problems, in particular education, drugs, child care and health care for the poor. So far, the policy response to these concerns has been muffled by unwillingness to ask the American people to pay for the solutions. But politicians will emerge to break through this barrier, and I believe they will discover that the people want America to be not only a richer economy but are willing to pay for a better society.

The author was chairman of the President's Council of Economic Advisors, 1973-74, during the administration of President Richard Nixon.

### In the minds of many Americans we are no longer the Number One economic power

of the industrial democracies, including the United States.

- A large part of the world lives in conditions of abject misery and that, too, is of concern to us - as human beings, if not otherwise.

- Saving in the United States is low, in comparison with our past experience, partly because much of the private saving is absorbed in financing the budget deficit. As a result, investment in America by Americans is low and this restrains the rate of growth of productivity and incomes.

Even people who accept that these are important problems are likely to resign themselves to the idea that we can do nothing about them. This means, as the first line of argument, that we do not have the money.

In an economy with a GNP of \$5,500bn (\$3,437bn), however, it is not credible that we do not have the money for programmes that cost \$10bn, \$20bn or even \$100bn. We are now spending \$1,100bn more on personal consumption per

## LETTERS

### Shareholders must act decisively on Vickers' issues

From Mr D.H. Brydon.

Sir, On April 28 Vickers' shareholders will be asked to vote on the resolutions which IEP Securities Limited, a subsidiary of Brierley Investments Limited, has demanded are put to shareholders.

These proposals are that Rolls-Royce be demerged, the company be authorised to buy in 25m ordinary shares and the company take steps to repay and cancel its preference stock.

It is important that shareholders in Vickers not only consider these resolutions with great care, but also take advantage of their right to vote. IEP Securities has been a significant and growing shareholder in Vickers for more than two years, and for most of that period its intentions, peaceful or predatory, have not been clear.

It is, however, only in the last few months that it has been established that IEP does not intend to launch a bid for

Vickers, but rather that it is keen to enhance shareholder value.

Clearly, all shareholders should be keen to extract maximum value from their investments and all reasonable suggestions for extracting that value should be considered. It is for precisely these reasons that it is so important for shareholders to vote.

Managing a company with a range of businesses, demands considerable resource and long-term planning. The prospect of a long-term focus for disinvestment if the issues in question are not settled is potentially damaging for the company. The issues should be settled decisively and unequivocally by the shareholders who are the owners of the company. D.H. Brydon, Chairman, Institutional Shareholders' Committee, PO Box 439, Sand House, 1 Swan Lane, EC4

### Cambodia: too long a boycott

From Mr Peter Curry.

Sir, Fifteen years ago this week (April 17, 1975), Khmer Rouge troops entered the Cambodian capital, Phnom Penh, emptied the city at gunpoint and a reign of terror which claimed the lives of nearly 2m Cambodians between 1975 and 1978.

Despite recent international efforts to end the civil war (now in its third decade), a political solution to the Cambodian problem is as far away as ever. Thanks mainly to the continued and unstinting support given by China and the West to the Khmer Rouge and their non-communist allies (Sihanouk and Son Sann), who are able to operate with impunity from their safe military bases on Thai sovereign soil, the war has intensified.

Since the Vietnamese pulled out last September, the civilian populations of the war-affected western provinces have suffered particularly severely. Upwards of 200 civilians, mainly women and children, undergo amputations each month because of landmine and anti-personnel explosions, and only a small percentage of these get any form of rehabilitation or artificial limb.

Given the urgency of the situation, should Britain be doing more to speed a political solution and help the Cambodian people in their hour of need?

Mr J. Brown: A number of words were inadvertently omitted from Mr Brown's letter ("The targeting of savings," April 7).

The relevant sentence

Why has the British Red Cross, for example, not joined its Swiss, Swedish, French, Australian, Polish and West German sister organisations in giving badly needed assistance to the impoverished Cambodian medical services?

Why has the Foreign Office not followed up its dispatch of a Bangkok-based diplomat and Overseas Development Administration doctor to Cambodia last December to establish a more regular on-the-spot monitoring of the fast-changing Cambodian situation? This absence of official diplomatic reporting from Cambodia is all the more surprising when one considers the pivotal role which Britain as one of the Permanent Five has recently played in bringing the Australian-sponsored United Nations peace initiative before the Security Council.

With so much at stake in Indochina for Britain, not least in terms of commercial opportunities and the need to staunch the haemorrhage of boat people to Hong Kong, surely the time has come for Britain to establish a permanent diplomatic presence in Phnom Penh?

Fifteen years of political boycott and official ostracism is too long.

Peter Curry, Trinity College, Oxford

### Keeping the grapes from wrath

From Mrs R.C. Allard.

Sir, How does Automac ("Time to pack the customer's bags," *Watching*, April 3) plan to persuade supermarket check-out assistants, using its new check-a-bag system,

not to haul the can of beans straight down the chute on top of the bunch of grapes? R.C. Allard, Hort Dret, L'Aldosa, La Massana, Andorra

### Overlap in the EC's anti-dumping and competition law cases

From Professor P. Messerlin.

Sir, Mr Wegter (*Letters*, March 22), on behalf of the anti-dumping office of the European Commission, states that with the exception of the PVC and LDPE cases I analysed, no anti-dumping cases overlapped with any of the competition law decisions taken between 1980 and 1989.

That is simply not true. Aluminium provides another "exceptional" case with a "twin" anti-trust case under Article 85 (1984) and nine aluminium anti-dumping cases (1982 and 1988). The plasterboard anti-dumping case (1984) is the perfect twin of an anti-trust case (1988) under Article 86. And the list goes on with

overlapping cases in consumer electronics, colour films, glass products, plywood, non-ECSC steel, titanium or wood pulp products, not to mention the soda ash and cement cases currently under anti-cartel investigations.

Last but not least, there are the never-ending "soap operas" where anti-dumping actions completely distort the meaning and impact of temporary competition decisions (at the national as well as European Community level) - in ball bearings, ECSC steel products, photocopyers, printers or various synthetic fibres. All these cases add up to almost one fourth of anti-cartel and anti-dumping cases.

Moreover, the anti-dumping office cannot have missed the fact that some anti-dumping cases have created *de facto* monopolies - although there are no formal competition law decisions for these products - as well illustrated by the ferrochromium or thiolphen cases.

The anti-dumping office spokesman qualifies as "wrong" my estimate of the cartel rents. These I made by multiplying the quantity sold by the price increase triggered by the anti-dumping-driven collusion. That does not strike me as wrong; it is simple economics. Maybe that is where the shoe pinches.

Mr Wegter suggests consultations between the anti-dump-

ing and competition authorities in the Commission do take place. The great number of overlapping cases, however, missed by the anti-dumping office spokesman suggests these are not working terribly well.

More fundamentally, consultations without rules are useless. In this case, clear rules mean that EC anti-dumping regulations should be subordinated to the competition principles embodied in Articles 85 to 90 of the Treaty of Rome, the European Community's constitution. Patrick A. Messerlin, Institut d'Etudes Politiques, 4 Rue Michelet, Paris

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# FINANCIAL TIMES

Thursday April 19 1990

**Balfour Beatty**  
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## East European aviation market takes off

Airlines in the former Soviet bloc are shopping in the west, reports Paul Abrahams

**W**ESTERN companies are scrambling to take advantage of the fast-growing eastern European civil aviation market — one of the few sectors where former Soviet bloc countries have proved willing to pay considerable sums of hard currency.

At least 21 aircraft have already been sold in the region by Boeing and Airbus during the past two years. Other aircraft have been provided by leasing companies.

In the wake of the airframe manufacturers, the engine suppliers have also been busy. GE, the US manufacturer, has just announced a deal with the Soviet airline Aeroflot for engines worth \$150m.

At a recent conference in Paris on east-west aviation, Dr Garrett Fitzgerald — a director of the GPA aircraft leasing group — estimated the market in east and central Europe over the next 10 years at between \$12bn and \$18bn, depending on the rate of economic growth.

That represents between 300 and 450 aircraft for both established carriers and start-ups such as Asda, the Soviet organisation being set up to rival Aeroflot.

The spate of orders has been unleashed because restrictions on the export of western technology to eastern Europe imposed by CoCom (the committee responsible for monitoring and approving sales of high-technology equipment to the eastern bloc) have been relaxed. It has insisted that all maintenance and engineering work be carried out in the west.

The purchases are motivated by a desire to capture a larger proportion of an expanding market for travel in eastern Europe.

Passenger volume on scheduled traffic between the US and the Soviet Union, Czechoslovakia, Hungary, Poland, Yugoslavia and Romania has increased from 251,000 in 1987 to 469,000 in 1989, according to United Airlines.

Much of that growth consists of up-market business-class passengers. For example, Malev Hungarian Airlines experienced a 26 per cent increase in business travellers in 1989 compared with 1988.

To meet demand, the airlines plan to increase the frequency of flights. At present, business passengers flying from Buda-

pest to Belgrade on a Monday are unable to return directly to Budapest until Thursday.

Vienna airport, the regional hub which serves all eastern European capitals except Tirana, expects to increase aircraft movements by between 10 and 12 per cent this year.

**T**he airlines are acquiring western aircraft because they believe they will be unable to compete effectively if they use Soviet aircraft. The reasons for this include:

- Operating costs. Soviet aircraft are far more expensive to operate than their modern western counterparts. Malev Hungarian Airlines estimates that fuel consumption on Soviet aircraft is at least twice as great as on western ones.
- Reliability. GPA estimates that the vast majority of Soviet aircraft built during the 1960s and 1970s were designed for an operational life of about 20 years, with maximum flight hours of 30,000. There is a chronic shortage of spare parts.

This means that many Soviet aircraft now spend far more time in maintenance sheds than in the air. The utilisation

of Soviet aircraft is half that of their western equivalents. In addition, maintenance costs on Soviet airlines can be between three and five times greater.

● Capital costs. The growth of the aircraft leasing industry means that the cost of operating a western aircraft — which is about six times more expensive to buy than its Soviet equivalent — has fallen considerably over the past 10 years.

Malev Hungarian Airlines, which is in the process of reconstructing its fleet and has three Boeing 737s in service with a further three on order, has estimated that it should be able to recoup the additional capital costs of western aircraft within 17 years. This is despite the fact that purchases of Soviet aircraft are financed by barter.

Furthermore, there appears to be no difficulty at present in finding banks and leasing organisations ready to do business with eastern European airlines.

One of the attractions of aircraft in the asset-backed finance business is that they are highly mobile.

The price of second-hand aircraft remains steady at the

moment and repossession does not normally pose problems.

● Simple availability of aircraft.

GPA believes that Soviet production levels will not be sufficient to satisfy Aeroflot over the next 10 years, let alone sell to other countries.

● Passenger preference. Soviet aircraft have a poor reputation for safety and comfort. There are moves, promoted by organisations such as the Brussels-based International Civil Airports Association, demanding that stage two aircraft, such as the Boeing 727 and most of the Soviet airlines should be handed from European Community airports before the end of the decade because they are too noisy.

Despite the market potential, eastern European civil aviation faces several constraints.

Apart from Ferihegy airport at Budapest, terminal and passenger facilities require substantial investment.

Investment in hotels is also needed. Airlines in the region will also need to make the painful transition to a service culture.

## Brussels defeated on corporate tax plan

By Lucy Kellaway in Brussels

**T**HE EUROPEAN Commission yesterday admitted defeat in its 15-year struggle to set a single rate of corporate tax throughout the Community, announcing instead a less ambitious "new approach" to the question.

In the short term this will mean concentrating on five directives, each designed to remove specific areas of discrimination for companies that do business in more than one member state. The Commission is undecided on how much harmonisation of taxes will be needed over the longer term and it plans to ask outside experts for suggestions.

Mrs Christine Servaers, the Commissioner responsible, said: "We have withdrawn our 1976 proposal for harmonisation. The new strategy is based on mutual recognition and co-ordination between member states."

The Commission would do all it could to persuade member states to agree on three existing directives at next week's meeting of finance ministers. These measures, which have been stuck in the pipeline for 20 years, cover withholding tax on dividends paid by subsidiaries in one country to a parent in another, taxation on gains accruing from a cross-border merger, and a procedure for settling taxation disputes between member states.

Brussels is also planning two new directives, which should be ready for the Council of Ministers by the end of the year. The first allows companies to offset losses made in one country against profits in another. The second would remove the tax implications of royalty and interest payments between subsidiaries in different states.

Taken together, the five measures would remove the tax obstacles to a single market for companies. Mrs Servaers stressed the need to get the directives through in time for 1992 and criticised the Council's slowness.

The experts committee, which has been given a year to come up with ideas, will consider to what extent the different tax levels in member states interfere with the single market and affect EC competitiveness.

The three directives have been blocked mainly on a withholding tax dispute between West Germany and the Netherlands.

## Hope of hostage release

By Lara Mariowe in Beirut and Lionel Barber in Washington

**A** LEBANESE group holding three American professors hostage said yesterday it would release one of the captives within 48 hours, but the kidnappers appeared to be demanding concessions from Washington.

In a statement delivered to a Lebanese newspaper and a Western news agency in West Beirut, the Islamic Jihad for the Liberation of Palestine (IJLP) asked Mr John Kelly, the US Assistant Secretary of State for near-eastern affairs and a former US ambassador to Lebanon, to travel to Syria to complete arrangements for the release.

The statement was accompanied by a photograph of Professor Jesse Turner. He was abducted from the campus of Beirut University College with Prof Robert Follini and Alan Stein by men posing as policemen on January 24, 1987.

The IJLP said it hoped its gesture would be reciprocated by the US. "We are ready for either a positive response or escalation and the other party has to choose," it said.

The US State Department said the US had long called for the unconditional release of American hostages held in Lebanon, but stressed that it regarded the matter as a humanitarian issue.

In view of the Islamic Jihad threat to escalate its actions unless the release is followed by unspecified reciprocal measures, US officials said the Administration would not enter a quid pro quo arrangement for the release of US hostages.

Hopes for the release of the remaining 17 western hostages in Lebanon have risen recently following repeated statements by Iranian leaders that they oppose hostage-taking.

The IJLP said: "In response to the wishes of Islamic leaders and urgent appeals by officials of the Islamic Republic of Iran... we have decided to free one American hostage within 48 hours on the basis of reciprocal positive action from the other party."

The release of the photograph of Mr Turner and the demand that Mr Kelly fly to Damascus, Syria, amounts to the most explicit statement in months about the hostages.

US officials said they had no official word from either Damascus or Tehran confirming that the Islamic Jihad statement was genuine.

Mr Turner's mother, Mrs Estelle Rosenberg, of Boise, Idaho, said she had been contacted by US officials yesterday. "I talked to the State Department and they told me they are checking things out and not to get too worked up."

## US trade deficit narrows sharply

By Anthony Harris in Washington

**T**HE US trade deficit narrowed sharply in February to \$6.48bn seasonally adjusted, the lowest monthly figure since 1986, the Commerce Department announced yesterday.

Main factors in the \$2.8bn drop from January were a \$1.2bn rise in aircraft exports and a fall of the same magnitude in oil imports.

The decline was substantially larger than market economists had guessed from customs figures, but there was little reaction in financial markets because month-to-month movements in aircraft export shipments are usually erratic.

The longer-term figures suggest that the trade deficit will continue to narrow, as exports are growing a little under twice as fast as imports. In the first two months of the year, exports are up by 11.6 per cent and imports by 8.7 per cent.

This trend reflects the slower growth of the domestic US economy and especially of investment spending. This is shown in the figures for capital goods, the largest category, accounting for nearly 40 per cent of total exports and nearly a quarter of imports.

Exports this year are more than 37 per cent up on the same months in 1989 while imports have risen only 8 per cent, in line with the growth of investment spending.

Imports of cars and consumer goods are virtually unchanged over the past year, thanks partly to rapid growth of US assembly of popular Japanese models. The fall in oil imports reflects price and volume falls and was influenced by abnormal winter weather.

Janet Bush adds from New York: The trade improvement failed to produce any rally in the Treasury bond market. At mid-session, the benchmark long bond was quoted more than a full point lower to yield 8.82 per cent, the highest level for nearly a year.

The slump in bond prices came amid rumours of substantial Japanese selling and concerns about an enormous amount of new paper to be absorbed over coming weeks.

It also reflected the fact that the dollar fell after the trade report, largely because it had been bid up in Tokyo on market rumours that the deficit would be only \$4bn.

At mid-session, the Dow Jones Industrial Average was 18.38 points lower at 2,746.33.

Market reports, Second Session.

## UK confirms seized steel tubes were part of giant gun for Iraq

By Our Industrial and Political Staff

**E**IGHT steel tubes detained by UK Customs and Excise officials at Teesside in north-east England were part of a giant gun being developed by Iraq, Mr Nicholas Ridley, Britain's Trade and Industry Secretary, confirmed yesterday.

Mr Ridley said the Government was "entirely satisfied" that the tubes formed part of a gun "on a scale outside anything previously experienced."

His statement ended a week of speculation about the purpose of the tubes which was seized on April 10.

Mr Ridley said his department had not known of the tubes' intended use until a few days ago.

However, attention is likely to shift to how much the Department of Trade and Industry did know about the suspect contract.

Sir Hal Miller, Conservative MP, told the House of Com-

mons that one of the companies involved raised its concerns about the contract in early 1988.

Mr Ridley said the DTI knew in the summer of 1988 that the Space Research Corporation, the company run by Dr Gerald Bull, the Canadian artillery expert, was involved in the contract.

Dr Bull was murdered earlier this month outside his Brussels apartment.

Mr Ridley said officials had decided no export licences were required under the Export of Goods Control Order, which limits the export of sensitive technology which could have military applications.

Privately, officials at the department were playing down claims that the DTI had been tipped off in 1988.

Mr Ridley said that recently the Government "became aware in general terms" of an

Iraqi project to develop a long-range gun based on designs developed by Dr Gerald Bull.

Astra Holdings, the UK-based firework and ammunition company, yesterday confirmed that its Belgian subsidiary PRS had contracted to supply "unusual" types of propellant for a very large gun and that the destination was "probably" Iraq.

In Baghdad, meanwhile, President Saddam Hussein sought to portray himself as the protector of the Arab world by saying that Iraq would retaliate against an attack on any Arab country by any aggressor, however powerful.

Mr Saddam said in a televised statement: "If we can strike him with a stone we will; ... and with all the missiles, tanks and other means at our disposal."

## WORLDWIDE WEATHER

City	Temp	Wind	Cloud	City	Temp	Wind	Cloud
Amsterdam	11	12	Partly	London	11	12	Partly
Antwerp	11	12	Partly	Madrid	11	12	Partly
Birmingham	11	12	Partly	Moscow	11	12	Partly
Bristol	11	12	Partly	Paris	11	12	Partly
Cardiff	11	12	Partly	Rome	11	12	Partly
Edinburgh	11	12	Partly	Stockholm	11	12	Partly
Glasgow	11	12	Partly	Warsaw	11	12	Partly
Liverpool	11	12	Partly	Zurich	11	12	Partly
Manchester	11	12	Partly				
Newcastle	11	12	Partly				
Nottingham	11	12	Partly				
Sheffield	11	12	Partly				
Sunderland	11	12	Partly				
Teesside	11	12	Partly				
Wolverhampton	11	12	Partly				
Wrexham	11	12	Partly				
York	11	12	Partly				

## Knock sees tourist boom

Continued from Page 1

down the road saying "Be Prepared to Stop" will probably only add to transatlantic travellers' worries about jet lag.

Knock is not, in fact, at all. Officially it is not even called Knock, though everyone, including the officials, refer to it as such. The village

of Knock, according to Catholic belief the site of an apparition of the Virgin Mary late in the last century — is a good few miles away. The airport's official name, in honour of the late monsignor, is "Horan International." It is also occasionally given the title "Connaught Regional Airport."

Not everyone is happy about the prospect of transatlantic

passengers stopping off at Knock. For many years Shannon airport, in the south-west of Ireland, has been a compulsory stopover point for all transatlantic flights in and out of Ireland.

This has meant that Dublin remains virtually the only western European capital lacking direct air connections with the US.

Passengers on scheduled transatlantic flights will still have to stop over at Shannon. But at least visitors from North America will now have the opportunity of flying direct to Knock, landing on top of a bog and getting lost.

## Unions may try to block Soviet transition

Continued from Page 1

ber — brought forward two years because of the political and economic upheavals.

"We must recognise that we are a non-party organisation and that not only among the rank and file but also in the leadership there will be those who belong to different parties."

● Mr Georgi Shakhnazarov, an aide to President Mikhail Gorbachev, said yesterday that a name change for the Communist Party would be raised at the 28th congress in July. He suggested a return to its Leninist title.

## The paper promise of Wiggins Teape

Now that the first details of Wiggins Teape Appleton's balance sheet are public, the shape of a deeply interesting flotation is starting to emerge. The likely opening value is about \$1.2bn, just twice the size of Argos, for a variety of reasons, is unlikely to be bid for. Early dealings in Wiggins Teape, on the other hand, will be closely scrutinised for signs of stakebuilding, whether from Europe, the US or the Far East.

The attractions to a bidder are obvious. The company is unusual for its industry in being solidly entrenched, with dominant market shares, on both sides of the Atlantic. For any predator oversupplied with pulp in the downsizing of the paper cycle, it might perhaps count as a disadvantage that Wiggins Teape has pulp capacity of its own. But even that is at the more desirable end of the market, in Iberian eucalyptus. And in both North America and Scandinavia the big producers, flush with cash from the boom days of the 1980s, are anxiously jostling for position.

Then again, the UK stock market should not get carried away. Supposing Wiggins Teape's net earnings this year are similar to last at around \$125m, the \$1.2bn figure assumes a multiple of ten. In both Europe and the US, paper company multiples now stand at six or seven. As an integrated producer serving the business user rather than the consumer, Wiggins Teape doubtless deserves a premium to its sector; but on much more than 10 times, the market risks taking bid speculation as an accomplished fact.

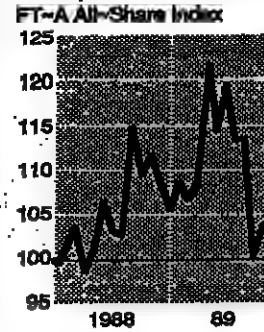
## UK economy

Yesterday's fit of boredom in the markets at the sight of the March UK retail sales figures looks eminently justified. Looking back over the monthly statistics since last June, the pattern has been distinctly patchy: retail sales rose in four months out of the nine, and fell in five. While the 1.4 per cent drop last month was greater than expected, it was hardly large enough to be decisive evidence. For that, the markets must look to the figures for April, when poll tax bills and yearly mortgage payment increases are a reality.

More to the point is the rather soft retail working on labour costs. Classically, the acceleration in unit wage costs in manufacturing, to 6.8 per cent in the three months to the

## Trusthouse Forte

Share price relative to the FT-A All-Share Index



end of February, would suggest that British industry is almost exactly at the point where it must start shedding labour on a grand scale. The difficulty at this stage is to see that this is actually happening, outside obvious sectors like brickmaking. As for services, where labour costs have risen still more sharply, the food retailers' desperation to hang on to staff hardly indicates a drastic tightening of the labour market.

Hence yesterday's most interesting economic indicator was the power workers' vote for industrial action. If poll tax riots unnerved some investors in gilts and equities, just wait until they have to cope with power cuts.

## THF

It would be wrong to suggest that Trusthouse Forte was out to mislead the market; but the change in its year-end, and the lack of strictly comparable data, has tended to disguise a pretty disappointing second half in the nine months to last July, pre-interest trading profits were growing at an above average 25 per cent. But in the year to end-January 1990 the growth had slowed to 15 per cent, and the steady improvement in margins had disappeared. Strip out the one-third rise in the net surplus on property disposals and a 6.6 per cent rise in pre-tax profits does not look particularly impressive against a 21 per cent sales increase.

THF was late in responding to the suddenness of the slowdown in its UK provincial hotels, which account for around a quarter of total profits. However, it is surprisingly confident that its margins in this business can be rebuilt quickly, and the weakness in sterling is cushioning the London hotels from the full effects of the economic slowdown. The

record to date of THF's core hotel businesses suggests that the management's confidence in its ability to withstand the economic slowdown should be taken reasonably seriously, even though it seems more optimistic than some of its competitors. Meanwhile, a 25 per cent discount to net assets should underpin the shares until the good times re-emerge.

## UK equities

Last October's sharp drop in the UK equity market may have been painful, but at least it cleared the air and lured buyers back quickly. The trouble this year has been that equities have been drifting downwards slowly. The retreat from above 2400 on the FT-SE under 2300 took a month and a half. It has taken another couple of months to shed a further 100 points, with the 2300 level now looking distinctly vulnerable for the first time this year.

The bulls would like to see a decisive break below this level before committing funds to the market. They draw comfort from the fact that historic price earnings multiples are a good 40 per cent less than they were when the FT-SE first broke above 2300, three years ago. On the other hand, the economic outlook is grimmer and long bond yields have risen by over 200 points in less than a month, which makes 5 per cent equity yields that much less attractive.

## Carlton

The remarkable decline in Carlton Communications' share price continues. One day three weeks ago, when the chairman spoke of "respectable" profits this year, the shares fell 12 per cent. They were down a further 11 per cent by yesterday morning, then fell 8 per cent in the course of the day. Rumour yesterday spoke of profit downgrading, bad news forthcoming in the trade press, a threat to patent rights and a Carlton bid for Thames TV. The first two are seemingly false; the second two, even if true, would scarcely account for the damage.

At yesterday's close of 451p, the shares are on around 8.5 times forecast earnings. On any rational grounds this is cheap; but the market has worked itself into the conviction that something is seriously wrong at Carlton, without having the least idea what it might consist of.

The shareholders of

**CFEC Finances**  
(the holding company of a management and employee buy-out)

have sold their controlling interest in

**Compagnie Française d'Electro-Chimie S.A.**

to

**Magneti Marelli S.p.A.**

The undersigned acted as financial adviser to the shareholders of CFEC Finances in this transaction.

**Dillon, Read Limited**

April 1990



# FINANCIAL TIMES COMPANIES & MARKETS

Thursday April 19 1990

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## INSIDE

### ADT acquires a taste for the world of art

ADT, the vehicle services and security group headed by Michael Ashcroft, now accounts for a hefty 15.1 per cent of the ordinary shares of the auction house. ADT denies a takeover bid is in the offing, but analysts believe that, in any case, the group would prefer the role of white knight. A hostile bid could unsettle Christie's staff, on whose relations with art sellers and buyers the group's business hinges. Page 33

### Making a pipe dream come true

The idea of sending share prices between Europe's stock exchanges is not new. But the latest attempt to distribute share information, the Pipe, could develop into far more. Two companies are being selected to produce a detailed design for the system, which, one day, could form Europe's biggest stock market. Page 36

### Small things in smaller packages

The race to develop smaller and better electronic apparatus sometimes appears futile when competitors are able to replicate and launch their own version of a product within months. Delta Bradshaw looks at the development of Sony's compact TR-55 camcorder and the inevitable competition. Page 37

### Picking fruitful markets

In 1988, Cuba exported nearly a million tonnes of citrus fruit — most of it to eastern Europe and the Soviet Union. But at the end of last year, the failure of Soviet and Polish vessels to collect shipments resulted in the diversion of considerable tonnage onto the domestic market. Nevertheless, Cuba forecasts strong demand from traditional customers. Page 38

### Singapore loses its sting

The Singapore stock market limped into the second quarter of this year. Against its 200th share daily volume in early January, when the Singapore and Malaysian bourses split, trading has trickled down to what one analyst terms "pre-Clob days," referring to the computerised trading system which tripled volume when adopted last year. Joyce Quek reports on a strange hiatus in the Singapore market. Back Page

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### Chief price changes yesterday

FRANKFURT (DM)		Tokyo	
Deutsche	835	15	710
Bayer	850	20	217
Hoechst	1360	50	217
Linde	395	10	310.5
Mannesmann	369	17.5	53.4
Vig	425	5	188
NEW YORK (\$)		Tokyo (Yen)	
Merck	74 1/2	5	1000
Phelps Dodge	22 1/2	5	670
Tandem Comp	22 1/2	5	2050
Phelps	75 1/2	5	1380
Coca-Cola	42 1/2	5	703
St Anne Bank	42 1/2	5	1910
PARIS (FF)			
Elf	1355	42.5	
Mid Co			
LONDON (Pence)		Osaka (Yen)	
Glaxo	428	10	463
Harman A	781	10	19
Isopad	186	11	201
Redland	229	11	68
Redland (NL)	638	10	318
Smiths Info	231	11	324
TI Group	424	11	254
Wool	212	11	218
Barclays	50	15	

## Large-scale job cuts expected at Atlantic

By David Owen

LARGE-SCALE layoffs are expected today at Atlantic Computers of the UK which has been put in the hands of administrators. The collapse of the world's third-largest computer leasing company comes within two days of the appointment of administrators by British & Commonwealth Holdings, the troubled UK financial services group.

Atlantic currently has about 1,600 employees of whom half are UK-based. Redundancy notices were being drawn up yesterday at the group's Staines premises amid scenes of anger and reports of widespread pilfering by employees fearing the sack.

One senior company director said "They have already decided to fire 80-90 per cent of the people here."

It emerged, meanwhile, that many of the blue chip companies that Atlantic liked to cite as customers were unhappy with the company's policies and had been attempting to negotiate their way out of their contracts.

The fallout has spread too to the UK convertible share market, where the prices of B&C's two convertible loan issues have collapsed. There is also disagreement as to precisely when the

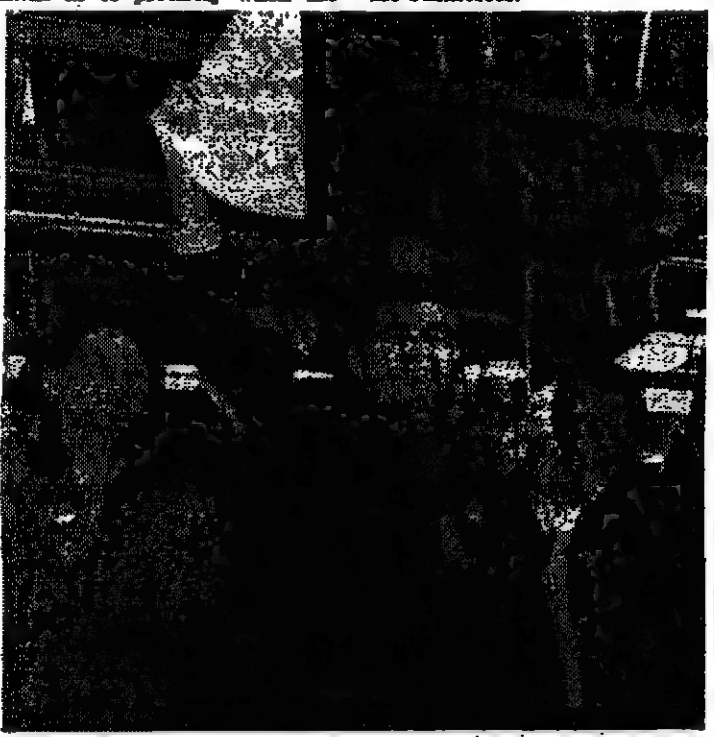
full scope of Atlantic's troubles became apparent.

B&C said on Tuesday that the "full enormity" of Atlantic's position only came to light in the past two weeks. "It has become clear within the last few days that Atlantic is not, and regrettably cannot be a company that is worth the more than \$400m that B&C originally paid for it," stated Sir Peter Thompson, recently made non-executive chairman.

A senior Atlantic executive claimed, by contrast, that "no new facts have come to light in the last two or three months." He added that "a maximum of 250m-300m would have made it a fully functioning business. David McCormick (the Atlantic chief executive who B&C says was suspended at the end of March) was beginning to turn it around," he said.

The redundancy notices, signed by Mr John Soden of Price Waterhouse, one of the joint administrators, inform recipients that they are to be made redundant with effect from April 18.

Price Waterhouse said that administrators are currently reviewing the affairs of the companies with the directors concerned, to assess the viability of the businesses.



Governor Michael Dukakis of Massachusetts waves to onlookers after signing into law the toughest anti-takeover legislation in US history. The law, aimed at slowing the hostile takeover of the Norton Industrial group by B&C of the UK, requires state companies to stagger the election of board members over three years.

## Air France profits fall by 27%

By William Dawkins in Paris

AIR FRANCE, the French national airline, yesterday announced a 27 per cent fall in annual profits. It also argued that a European Commission inquiry into its alleged abuse of a dominant market position was out of place.

Mr Bernard Attali, chairman, maintained that his controversial takeover in January of UTA and Air Inter, two private airlines, merely lifted the state-owned group's share of its home market to the same level as that held by other national carriers in their own.

"Why should Air France be treated in a discriminatory manner and be forbidden from aligning itself with a situation that exists everywhere else in Europe?" he asked in a statement presented to Air France's annual press conference.

The deal lifted Air France's share of traffic leaving the country with French-owned carriers from 78 per cent to 97 per cent, said Mr Attali. That compared with Lufthansa's 99.8 per cent share of West German traffic, while KLM had 97.3 per cent in The Netherlands and British Airways 99 per cent of UK traffic, he said.

If European airlines were prevented from strengthening themselves, they would be competing on unequal terms with big groups such as American Airlines or low-cost Asian carriers, Mr Attali warned.

The integration of UTA and Air Inter was proceeding well, with the first advantages of the merger coming from joint fuel buying, pooled computer systems and a common recruitment of flight staff, he said.

Air France, the world's fourth largest airline, announced yesterday a 27 per cent decline in net consolidated profits to FF441.3m (\$149.6m) last year, on turnover up 11.8 per cent to FF79.6m.

The main factor behind the earnings decline was the rise in the dollar. Some 90 per cent of the group's revenue is in this currency and its climb boosted the group's fuel bill by 24 per cent.

Net debt payments also leapt, from FF216.5m in 1988 to FF264.8m last year, partly reflecting the higher borrowings needed to finance FF11.5bn of investment in new aircraft. In addition, a strike at the end of 1988 and early last year cost the group an estimated FF670m.

Air France ordered 28 aircraft last year, by the end of which its fleet stood at 112 aircraft. During the same period, its passenger traffic rose by 8.9 per cent, while freight grew by 4.2 per cent.

## Weavers rescue plan founders as negotiations break down

By Patrick Cockburn in London

EFFORTS to rescue H.S. Weavers, the largest underwriting agent for US liability business in the London insurance market, were close to foundering yesterday.

Weavers stopped underwriting last month when the Department of Trade and Industry (DTI) told the main subsidiary of its parent company, London United Investments, to stop writing new business because of lack of reserves to meet claims.

Yesterday a meeting of some 40 brokers and other interested parties which was called to discuss a possible rescue plan for Weavers and LUI broke up without reaching a conclusion.

The failure of the meeting to produce a rescue plan will reinforce a growing belief in the

insurance industry that Weavers is fast losing its remaining credibility among brokers and clients.

An earlier effort to resolve some of the problems facing Weavers collapsed last week when Anglo American Insurance of New York pulled out of a rescue bid.

According to Mr John Head, Anglo American's owner, his company had never obtained the degree of control over Weavers' day-to-day activities which it had expected under its agreement with LUI.

He added that Anglo American was prepared to ensure that there was an orderly run-off of Weavers' past business and that the company's 200 staff would be kept together to process the claims.

Brokers are eager to avoid total liquidation of LUI's business because of damage to the London insurance market, possible litigation from disgruntled clients and difficulty in servicing the old claims.

Mr David Rowland, chairman of Sedgwick Group, the leading UK broker, said yesterday his company had been working closely with Marsh & McLennan, the largest US broker, to find a solution.

Rescue plans have been inhibited by uncertainty about the extent to which LUI's subsidiaries lack sufficient reserves to continue underwriting.

Brokers were given an estimate of the amount needed at yesterday's meeting but would not disclose the exact figure.

## Australian life groups to merge

By Bruce Jacques in Sydney

MLC and Capita, two of Australia's largest and oldest life assurance groups, have agreed to merge. The deal will create the country's third largest life office with total assets of about \$A10bn (US\$7.7bn).

The move again raises the issue of less competition in the Australian financial services sector. ANZ Banking Group's controversial \$A3.4bn partial takeover proposal for the National Mutual, has yet to be approved by policyholders and government authorities.

But unlike that deal, which is a corporate takeover, the MLC-Capita link will be more of a true merger. The smaller Capita group, with assets of about \$A3.5bn, will be subsumed into the larger MLC group, with assets of about \$A6.5bn.

There is no takeover consideration in the deal, but Capita policyholders will be compensated for, in effect, giving up their assets (and liabilities) to MLC through an increased bonus and income scheme.

Mr Vic Martin, MLC chairman, said yesterday Capita's regular premium policyholders were likely to receive bonus rate increases ranging from 15 to 30 per cent over the next two years. They were also expected to earn an extra 1 to 1.5 per cent on their investments.

On top of this, an additional special bonus interest rate of 1 per cent per annum will apply for two years to all Capita single-premium, capital guaranteed investment account policies, Mr Martin said. "These changes will bring the majority of Capita policy bonuses and earnings rates to levels enjoyed by MLC Life policyholders."

Mr Martin said MLC regular premium policyholders would also receive a \$A50m special bonus on June 30 this year, on top of normal bonuses. The merger "will create a substantially larger organisation with stronger distribution channels and a more efficient administrative network," he added.

The deal follows market suggestions that Capita's performance has been slipping in recent years. The organisation recently changed chief executives, with the aggressive Mr David Groat replaced by the former Westpac Banking Corporation insurance executive, Mr Monty Hilkowitz.

The merger requires the approval of the Insurance and Superannuation Commissioner who has given initial consent subject to finalisation. It also requires approval from the Australian Federal Court.

## Man with the power to light up the east

David Goodhart talks to Friedhelm Gieske, head of RWE, West Germany's biggest energy company

Mr Friedhelm Gieske, chief executive of West Germany's largest energy group, RWE, is arguably the most powerful man in German industry.

The unassuming 61-year-old lawyer sits at the centre of an empire which controls much of the country's electricity supply, coal mining, construction and environmental control industries, as well as significant slices of the chemicals and investment goods sectors.

In his spare time he sits on government committees: he was a member of the Mikat Commission which has just pronounced on the future of coal subsidies, and took over from the murdered Deutsche Bank boss, Mr Alfred Herrhausen, as chairman of the Ruhr Initiative which is breathing new life into the former coal and steel region.

In the past few years, RWE has embarked upon a comprehensive diversification programme and, earlier this year, it instigated a far-reaching corporate reorganisation. Together these moves have helped to double RWE's share price over the past year to about DM470 (\$293).

The markets have also been excited about the company's prospects in eastern Europe, and especially East Germany. The breadth of RWE's potential business in East Germany is perhaps second only to that of Siemens.

"We have everything for East Germany," says Mr Gieske. Potential involvement extends from the petrol station network, in which RWE-DEA already claims a 10 per cent market share, to chemicals, electricity supply, and de-sulphurisation plants. Through Hochtief, the second largest of West Germany's booming construction companies — in which RWE has just raised its stake to 56 per cent — there is further exposure to the building and environmental protection markets.

Mr Gieske, like most other West German businessmen, is reluctant to be too specific about deals in East Germany during the current transitional phase. He denies reports that RWE is seeking a majority stake in East Germany's main electricity supply company.

He also denies rumours that the West German electricity suppliers are planning to annex the East German system and pump in their own power, thus making it possible to close the highly-polluting, brown coal-burning power stations which provide about 80 per cent of East Germany's electricity needs.

But Ruhrge, in which RWE



Friedhelm Gieske: "We have everything for East Germany"

has a small stake, has just announced a deal to supply East Germany with 2m cubic metres of gas a year and the West German Oil Industry Association, in which RWE plays a key role, plans a DM10bn investment programme in East Germany.

"East Germany needs its own electricity supply system from a mixture of sources, including nuclear, and the unemployment problem would be terrible if you just closed existing plants," says Mr Gieske. He adds that a West German electricity takeover could not, in any case, happen overnight as it takes almost two years to build the transformers needed to adapt the West German current for the East German grid.

His own estimate is that brown coal burning can be cut from the current 30m tonnes a year to about 18m tonnes by the year 2000. About a half of the brown coal stations can be closed quite soon and most of the rest can be equipped with de-sulphurisation equipment.

RWE is already participating in a DM500m pilot de-sulphurisation plant near Leipzig backed also by

the Bonn Environment Ministry. Despite some frustration with the continuing legal uncertainty for business in East Germany, he remains confident the country needs only five years to catch up.

He is also adamant that the new interest in East Germany will not distract the company from continued expansion elsewhere. He quotes the example of Hochtief, which has recently been expanding in Spain and the UK, and may soon increase its interest in the UK property group, Rush & Tompkins. RWE has also just invested DM30m in a joint venture with Manchester-based Chloride Silent Power to develop high speed batteries.

Mr Gieske reports that this year RWE will increase sales by at least 12 per cent to more than DM43bn. He says there are no immediate plans to float off any of the five subsidiaries into which the company has been subdivided, or to reduce the potential power of the municipal shareholders which still hold more than 50 per cent of the voting shares.

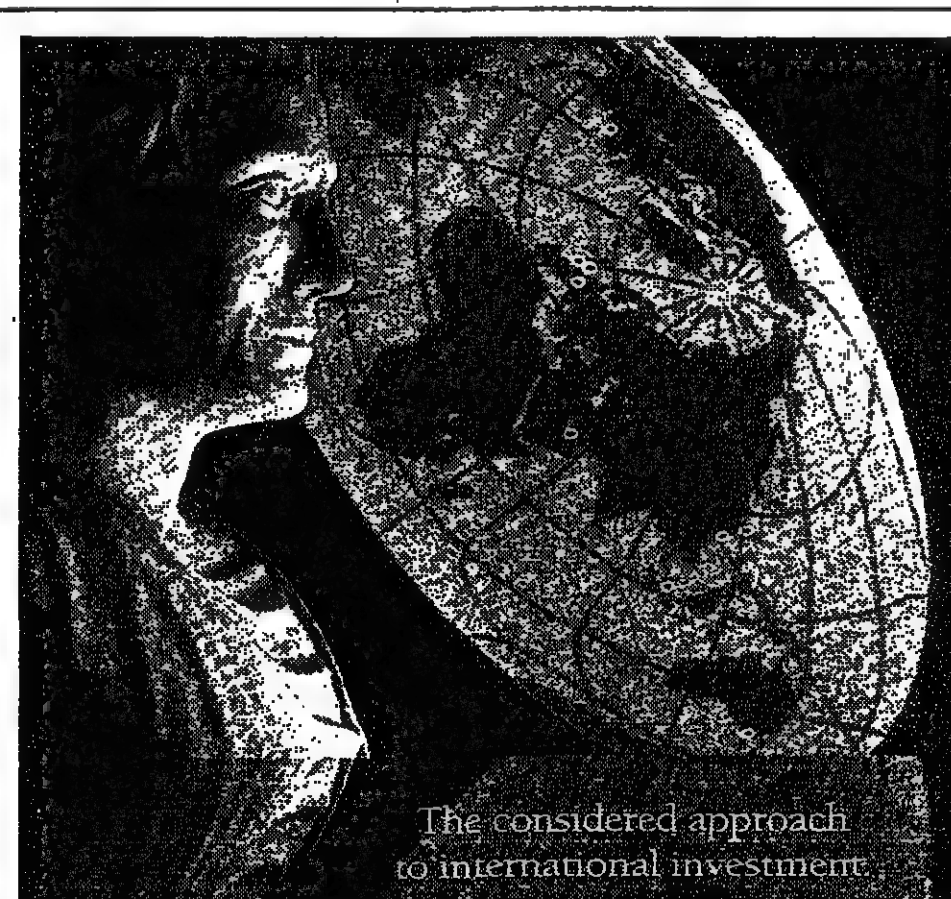
Despite RWE's growing international presence, the chief executive denies persistent rumours about plans to take over a Spanish utility. He says that competition within Europe will grow, but remains sceptical about a truly open electricity market within the EC.

He believes that security of supply remains the overriding priority in the electricity market and that such a priority justifies the recent Mikat Commission recommendation to maintain the supply of protected domestic coal to industry at 55m tonnes per year, down only slightly from the current 72m tonnes.

But Mr Gieske points out that the Commission also called for a sharp reduction in the annual subsidies — currently DM10bn — that protected coal requires. He says that, as the example of the UK shows, costs can be reduced and loss-making pits closed.

Further pit closures in the Ruhr area will make the Ruhr Initiative even more vital. The initiative has already been a great success, says Mr Gieske, not only in attracting new investment but in changing the "feel" of the once-gloomy region. He points to the fact that Henry Kissinger recently attracted a crowd of 5,000 to a lecture he gave in Essen, in the heart of the Ruhr; an event that would have been unthinkable a few years ago.

"The Ruhr Initiative is comparable with the public-private partnership in Pittsburgh and the most successful of its kind in Europe," says Mr Gieske.



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## INTERNATIONAL COMPANIES AND FINANCE

## Increase in call volume lifts AT&amp;T and MCI

By Roderick Oram

AMERICAN Telephone and Telegraph (AT&T) and MCI Communications, the two leading providers of long-distance telephone services in the US, have reported sharply higher earnings, reflecting growth in the volume of calls.

AT&T's first-quarter net rose 12.5 per cent to \$683m or 62 cents a share, from \$604m or 55 cents a year earlier. Revenues rose 2.7 per cent to \$8.89bn from \$8.66bn.

MCI's first-quarter net profit grew 22 per cent to \$156m or 62 cents a share, from \$128m or 51 cents a year earlier on revenues up 20 per cent to \$1.8bn from \$1.5bn.

AT&T's long-distance volume rose 7 per cent, with strong growth from international and business calls, particularly from its incoming toll-free 800 service and its outgoing WATS discount operation.

Margins on services continued to expand thanks to increased efficiency in AT&T's network while margins on equipment sales were flat against last year, reflecting competitive pressure.

Sales to domestic phone companies were static but AT&T sold more switching equipment abroad, to Singapore and Poland for example.

Sales were strong in mini-computers and AT&T's new line of personal computers. Computer production at its Arkansas plant was increased.

The company also benefited from a tight rein on expenses which rose only marginally during the quarter. Its operating income rose 21 per cent to \$1.18bn from \$977m.

Mr Robert Allen, chairman, told the annual meeting in Los Angeles yesterday: "AT&T is moving forward into the decade of the 1990s faster of foot, quicker in response to customers and changes in the market place, and more alert to new targets of opportunity for growth."

MCI's operating income rose 25 per cent to \$383m. Mr Bert Roberts, president, said: "Traffic volume and revenue growth continued at a rapid pace, which indicates that the market recognises MCI as the high-value provider of the industry."

The company said the quarter was notable for acquisitions. These included the purchase of Telecom USA, the fourth largest long-distance company, and a 25 per cent stake in Infonet, an international provider of data services owned by a group of Asian and European telephone administrations.

## Merrill Lynch edges ahead to \$41m

By Janet Bush in New York

MERRILL LYNCH, the largest US securities house, yesterday reported net earnings of \$41.3m in the first quarter, a rise of slightly more than 11 per cent from the depressed level seen in 1989's opening period.

Earnings per share were 34 cents in the first three months, against 31 cents a share a year earlier. Revenues declined to \$2.65bn from \$2.80bn.

The 5 per cent fall in revenues reflected difficult conditions in the securities industry and, in particular, lower levels of underwriting and merchant banking activity which have eroded the profitability of many brokerage houses committed to the high-margin business.

The effects of a sharp decline in investment banking business on Merrill Lynch's bottom line was, however, mitigated by a 5 per cent reduction in total costs.

Mr William Schreyer, chairman, and Mr Daniel Tully, president, said operating expenses were down in virtually every category and that the restructuring programme was beginning to have an effect.

The company took a \$470m pre-tax charge against its fourth-quarter earnings, giving it a net loss in 1989 of \$213.4m or \$2.91 a share. The restructuring programme is aimed at reducing annual costs by more than \$100m.

Merrill Lynch said yesterday that revenues from commissions, principle transactions, insurance, asset management and custodial fees increased.

Mr Schreyer and Mr Tully also pointed out that, while investment banking activity had declined, Merrill Lynch retained its leading position in domestic and global underwriting.

Shearson Lehman Hutton, the Wall Street securities house which recently received \$1.35bn in fresh capital from American Express, its parent, and which has been undergoing a sweeping restructuring, is expected to announce a first-quarter loss of more than \$500m.

Shearson has already announced it will take two charges against first-quarter earnings: one of \$630m related to restructuring costs and another of \$157m which represents a change in accounting principles.

Earlier this month the group said it would report a net loss of between \$807m and \$917m.

The final outcome is expected to be at the high end of that range.

Like many other brokerages, Shearson has experienced an erosion of its revenues because of a general slowdown in securities activity, particularly in the investment banking sector.

## New products spearhead Merck's growth

By Karen Zagor in New York

MERCK, the New Jersey drug company, yesterday reported a 19 per cent improvement in its opening quarter's profits, to \$403.8m from \$340.4m.

Earnings per share rose 20 per cent in the three months ended March 31 to \$1.03 from 86 cents a year earlier, on sales which grew 12 per cent to \$1.76bn from \$1.57bn.

Sales would have been 1 per cent higher but for a rise in the dollar exchange rate, which caused lower dollar translation of the company's big overseas sales.

Merck, which paced the

industry in introducing new products through the 1980s, said sales growth was led by new products. Revenues were particularly strong for Mevacor, a cholesterol-lowering agent, which the company said held 87 per cent of the US market.

Foreign sales accounted for 45 per cent of total revenues against 49 per cent a year earlier.

Shares in the company, which last year said it would not be able to maintain its earnings growth rate of 25 per cent per quarter indefinitely, rose 3% to \$74.4 on the New York Stock Exchange yesterday.

The company's stock has traded in a range of \$67 to \$80 this year.

Pfizer, another big US drug group, reported a 5 per cent increase in net earnings to \$251.9m or \$1.50 a share against \$240.9m or \$1.49 a year earlier.

Revenues grew 3 per cent to \$1.48bn from \$1.44bn. Excluding the impact of a stronger dollar and the planned sale of Pfizer's pigments business, sales advanced 7 per cent in the quarter.

The company said that improved sales from its health-care, consumer products and specialty chemicals businesses were offset by a 19 per cent decline in revenue from specialty minerals, attributed to the impending sale of the pigments business.

Sales from Pfizer's animal health business were static, it said.

The company added that revenues were particularly strong from two recently launched products - Procordia XL, the cardiovascular drug, and Difucan, the antifungal.

## Coca-Cola climbs 9% to \$283m

By Martin Dickson in New York

STRONG sales growth in Western Europe helped Coca-Cola, the world's largest soft drinks company, to a 9 per cent increase in first-quarter net income.

Coca-Cola, one of the best regarded US companies, with a long record of uninterrupted growth, said net income rose to \$283m from \$260m in the same period of last year, on revenue 12.4 per cent ahead at \$1.1bn.

Earnings per share from continuing operations were up 15 per cent at \$0.83, but that was below best market expectations.

However, Mr Roberto Goizueta, chairman, pointed out that the first quarter of last year had been particularly strong, with earnings per share growth of 26 per cent.

Worldwide gallon sales of concentrates and syrups, as well as case sales to retail customers, increased about 7 per cent in the quarter.

The strongest growth came from markets outside the US which the company has targeted for expansion.

Gallon sales outside the US advanced 9 per cent and case

sales 10 per cent.

Retail case sales rose 14 per cent in the European Community, with a 21 per cent gain in Britain, 16 per cent in Spain and 14 per cent in Germany.

Gallon sales in the EC were up 23 per cent, due primarily to improved distribution in France and inventory accumulation by bottlers.

In the US, case sales to retail customers grew 3 per cent, packaged sales by 4 per cent and gallon sales of concentrates 2 per cent.

## Strong rise at Philip Morris

By Martin Dickson

PHILIP MORRIS, the US tobacco and food conglomerate, yesterday announced better than expected first-quarter profits, with net earnings rising 31.4 per cent to \$770m from \$589m in last year's period.

The company's US cigarette operations increased their market share, and operating revenues were up on slightly higher cigarette unit volumes.

Operating revenues and unit volumes were also ahead in international tobacco operations.

Kraft General Foods posted increased operating revenues on slightly higher volumes, while those for Miller Brewing, the beer producer, advanced on higher barrel volumes.

For the group as a whole, operating revenues were up 7.3 per cent from \$10.6bn to \$11.4bn.

Net earnings per share were 31.3 per cent higher at 84 cents, against 64 cents last year.

## Modest start to year for United Technologies

By Roderick Oram in New York

UNITED Technologies has posted modestly higher first-quarter profits, with strong performances from its Pratt & Whitney aircraft engine and Otis elevator subsidiaries more than offsetting weakness in other sectors.

Net profits rose 8.7 per cent to \$134.5m or \$1.01 a share fully diluted, from \$123.7m or 95 cents a year earlier. Revenues rose 6.7 per cent to \$4.5bn from \$4.25bn. The results met analysts' forecasts.

Mr Robert Daniel, chairman, said: "The corporation's diversity, large after-market businesses and international presence continue to be its greatest strengths, particularly when some segments of the US economy are soft."

The power systems division, incorporating Pratt & Whitney, reported operating income of \$251m against \$179m, mainly because of higher spare parts sales. Revenues were \$1.63bn compared with \$1.55bn.

Pratt & Whitney landed \$3.1bn of engine orders during the quarter, pushing United Technologies' order backlog to \$21.3bn at quarter-end, from \$18.2bn a year earlier.

Building systems reported operating income of \$92m against \$76m, with most of the gain resulting from Otis's growth abroad. Carrier's income fell, reflecting lower demand for heating, air conditioning and ventilation equipment.

Flight systems reported a loss of \$11m, against a profit of \$12m. Within the sector Sikorsky helicopters and Hamilton Standard aircraft components suffered a downturn in profits.

Income from the industrial segment fell to \$16m from \$33m, mainly because of lower demand for car and truck components in North America.

## Canadian forest group tumbles

MACMILLAN Bloedel, the Canadian forest products company controlled by the Noranda resources group, saw earnings fall sharply in the first quarter.

Mr Robert Gibbons, chairman, said: "Earnings declined to \$385m (US\$25.2m) or 36 cents a share, down 60 per cent from a year earlier on sales which fell to \$751m from \$979m."

The group was hit by the higher Canadian dollar, high interest rates and slower pulp and timber markets.

## Buoyant Honeywell to shed defence and maritime operation

By Martin Dickson

HONEYWELL, the US electronics and automation group, is to spin off its defence and maritime business into a separate company. It has also unveiled higher first-quarter net income.

The company, which was repeatedly restructured during the 1980s, said last July it intended to divest the defence and maritime business but did not say how this would be achieved.

It is now saying that while it does not rule out the possibility of selling the operations, which had 1989 sales of \$1.14bn and net income of \$53.8m, it believes a spin-off offers the best value for shareholders.

Management is due to present a plan to the board in this year's third quarter.

Net income from continuing operations totalled \$83.4m or \$2.12 a share in the first quarter, against \$51m or \$1.18 a year ago on sales up from \$1.43bn to \$1.58bn.

## Polaroid advances despite falling sales

By Karen Zagor

POLAROID, the US photography group, has reported first-quarter net earnings of \$31.5m or 48 cents a share against \$25.9m or 29 cents a year earlier.

But the company, which lowered its earnings estimates for the year, saw worldwide sales in the latest quarter fall to \$406.2m from \$423.3m.

The company, based in Cambridge, Massachusetts, said last year's results were distorted by the cost of fighting off a \$2.8bn takeover attempt by Shamrock Partners.

Operating profits for the first three months of 1990 fell to \$65.4m from \$73.4m. The 1989 figure does not include expenses of \$38.5m related to the Shamrock bid.

Mr MacAllister Booth, Polaroid's chief executive, said: "The general worldwide business environment has been slower than expected."

"This, in combination with increased marketing expenses related to our long-term growth strategy, is reflected in our first-quarter results."

Mr Booth said the company had lowered its expectations for the year, although it still expected to show moderate growth in sales and operating profits for the whole of 1990.

## Bank of New England to isolate property assets

By Martin Dickson

BANK of New England, which has been savaged by the sharp downturn in its regional property market, has unveiled plans to isolate its non-performing real estate assets in a new "collecting bank" which would restructure and rationalise them.

The move forms part of a strategy to improve its weakened capital base and return to profit. Earlier this month the bank said it would be slashing its assets by a third, and it has also been selling off non-core subsidiaries.

Mr Lawrence Fish, the new chairman, confirmed speculation that BNE would try to sell

its banking subsidiaries in Maine and Rhode Island over the next six months. Each has about \$1bn in assets.

Mr Steven Wheeler, a former co-head of property activities at Morgan Stanley, the large investment bank, will take charge of the new "collecting bank" which may try to sell the assets.

Mr Fish said the assets involved could total \$1bn and might be grouped into several categories, such as commercial, hotels, condominiums and residential.

The ultimate aim would be to finance the assets off the bank's balance sheet.

## Higher gross margins boost Safeway Stores

SAFeway Stores, the Californian supermarket chain taken private by Kohlberg Kravis Roberts in a \$4.2bn leveraged buy-out in 1986, improved first-quarter earnings on modestly higher sales, writes Karen Zagor.

The company, which has filed plans for a 10m public share offering at an expected price of \$13 to \$16 a share, said net income for the quarter improved to \$15m from \$8m a year earlier. Sales rose 3.4 per cent to \$3.94bn.

The company said its operating profits of \$11.6m in the latest quarter were 5.6 per cent higher than in 1989, primarily because of continued improvement in gross margins. It attributed this to the addition of more specialty departments in its stores, better buying practices and more effective merchandising.

## Lower copper prices slow Phelps Dodge

PHelps DODGE, the largest copper producer in the US, was hit by lower average copper prices which put pressure on its earnings in the first quarter, Reuters reports.

The group, which also produces zinc, wheels and rims, saw net income decline to \$111.3m from \$165.9m a year ago, on revenues down to \$642.6m from \$743.3m. Per share earnings on a diluted basis were \$3.20 compared with \$4.52.

The Comex spot copper cathode price averaged \$1.12 in the quarter, compared with \$1.49 in the corresponding 1989 period. The company's mine production reached a record 132,200 tons of copper for the current period, up from 129,100 tons a year ago.

The latest earnings were also affected by lower sales of wheels and rims for trucks.

## Shortfall at joint venture holds back McGraw-Hill

By Janet Bush

MCGRAW-HILL, the US publishing and information services group, suffered a 47 per cent decline in net income in the first quarter, but forecast that profitability would improve during the year.

Net income dropped to \$16.5m from \$31.2m in the first three months of 1989. Earnings per share fell to 34 cents a share from 64 cents on revenues which rose 7.6 per cent to \$420m.

Mr Joseph Dionne, chairman, said he had expected a soft first quarter for several reasons, including a loss at the Macmillan/McGraw-Hill School Publishing Company formed last year. McGraw-Hill's share of that loss was \$12.8m. Mr Dionne said this was lower than expected and he foresaw the joint venture's results improving in the full year.

Another item eroding profitability in the first quarter was interest on borrowings the

company took on last year and early this year to finance acquisitions. Interest payments in the first quarter were, on a pre-tax basis, \$8m higher than a year earlier.

Gannett, the newspapers and media conglomerate, earned net income of \$76m in the first quarter, against \$74.9m a year earlier.

Earnings per share were unchanged at 47 cents a share. Per share earnings for the first quarter of 1989 included a one-off gain of about 3 cents a share.

Revenues were \$613.4m, compared with \$617.6m a year earlier.

Gannett's profitability was undermined by what the company said in a letter to employees was "the poorest advertising environment in almost 20 years."

Newspaper advertising revenues declined by 3 per cent in the first quarter.

## Oryx Gold Holdings Limited

(Incorporated in the Republic of South Africa - Company Registration No. 690190006)

Share capital: Stated - 587 500 100 ordinary shares of no-par value  
Issued - 165 000 200 ordinary shares of no-par value

## Report for the quarter ended 31 March 1990

	Quarter ended 31.03.1990 R'000	Quarter ended 31.12.1989 R'000	Year to date 01.09.1989 to 31.03.1990 R'000
<b>INCOME STATEMENT</b>			
Income			
Interest received	10 257	8 623	18 767
Financing costs	9 922	6 468	18 126
Sundry expenditure	102	150	278
Income before taxation	233	(15)	363
Taxation	(133)	(7)	(198)
Income after taxation	100	(8)	165
Retained income at beginning of period	13 021	13 029	12 956
Retained income at end of period	13 121	13 021	13 121
<b>BALANCE SHEET</b>			
Capital employed			
Share capital	621 093	621 093	621 093
Retained income	13 121	13 021	13 121
	634 214	634 114	634 214
Long-term liabilities (note 1)	221 613	178 610	221 613
Deferred taxation	787	4 168	787
Employment of capital	856 614	816 892	856 614
Fixed assets	424 526	424 526	424 526
Loan to St. Helena Gold Mines Limited	414 786	382 020	414 786
Net current assets/(liabilities)	17 302	10 346	17 302
Current assets			
	18 721	11 812	18 721
Debtors and pre-payments	8 980	11 763	8 980
Cash and deposits	9 741	49	9 741
Current liabilities	1 419	1 466	1 419
Creditors	1 341	1 388	1 341
Provision for taxation	78	78	78
	856 614	816 892	856 614

## NOTE:

1. Long-term liabilities include a Eurodollar loan of \$25 million, which is fully covered.

## REMARKS:

(i) The figures are unaudited.  
(ii) The attention of shareholders is also drawn to the quarterly report of the Oryx mine which appears elsewhere in this edition.

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London EC1N 6JA

By order of the Board  
per: D J D Ross  
Senior Divisional Secretary (Gengold)

Johannesburg  
19 April 1990



Copies are available from the London office

## Beatrix Mines Limited

(Incorporated in the Republic of South Africa - Company Registration No. 770213806)

Share capital: Authorized - 150 000 000 ordinary shares of no-par value  
Issued - 85 000 000 ordinary shares of no-par value

## Report for the quarter ended 31 March 1990

	Quarter ended 31.03.1990 R'000	Quarter ended 31.12.1989 R'000	Year to date 01.09.1989 to 31.03.1990 R'000
<b>INCOME STATEMENT</b>			
Income			
Interest received	2 207	1 689	4 543
Royalty	16 449	15 952	37 703
Dividends	14 000	13 000	37 000
	32 656	30 641	79 246
Interest paid and sundry expenditure - net	165	350	350
Income before taxation	32 491	30 291	78 896
Taxation	2 245	8 741	20 948
Income after taxation	23 246	21 740	57 948
Retained income at beginning of period	37 087	15 347	2 385
Disistributable income	60 333	37 087	60 333
Dividends declared	42 500	37 087	42 500
Retained income at end of period	17 833	37 087	17 833
<b>BALANCE SHEET</b>			
Capital employed			
Share capital	131 466	131 466	131 466
Non-distributable reserve	17 833	37 087	17 833
Retained income	149 299	168 553	149 299
Employment of capital			
Fixed assets	77 843	77 843	77 843
Loan to Buffelsfontein Gold Mining Company Limited	49 111	49 111	49 111
	126 954	126 954	126 954
Net current assets	22 345	41 599	22 345
Current assets			
	68 090	53 701	68 090
Current liabilities	45 745	12 102	45 745
	149 299	168 553	149 299

## REMARKS:

(i) The figures are unaudited.  
(ii) Interim dividend No. 9 of 50 cents per share was declared on 26 February 1990.  
(iii) The attention of shareholders is also drawn to the quarterly report of the Beatrix mine which appears elsewhere in this edition.



## INTERNATIONAL COMPANIES AND FINANCE

## Metsä to veto merger of forestry groups

By Enrique Tessieri  
in Helsinki

METSA-SERLA, one of Finland's leading forest groups, plans to vote against the merger between Ramma-Rekola, an engineering and forest group, and United Paper Mills (UPM), the country's fourth largest forest group.

A UPM board meeting today was supposed to have approved the merger to form Repola. This would have been the country's largest industrial group, with an annual turnover of Fm25bn (\$6.27bn) and a workforce of 35,000.

The proposed merger was, partly, a defensive response to Metsä's Fm2.5bn purchase in January of a 29.3 per cent stake in UPM. Under the UPM by-laws, a shareholder with a 25 per cent stake can obstruct a merger.

As a defensive move Ramma-Rekola took up a directed preference issue of UPM shares, raising its stake in the forest group from around 6 per cent to 15 per cent.

## Banesto signs agreement with Italian bank

By Peter Bruce in Madrid

BANCO Espanol de Credito (Banesto), one of Spain's major commercial banks, has taken one of its first steps into the European Community with the signing in Milan yesterday of a wide-ranging co-operation agreement with Banco Ambrosiano Veneto, a privately owned Italian commercial bank in which the Fiat group has an important stake.

Banesto said yesterday the two had agreed to exchange information and commercial and investment banking services in both countries.

## Peugeot up 16% in spite of losses caused by strike

By William Dawkins in Paris

PEUGEOT, Europe's third largest car maker, yesterday reported a 16.4 per cent rise in 1989 net income on a 10.5 per cent increase in sales and issued fresh calls for protection against Japanese competition.

The group, which makes Peugeot and Citroën cars, unveiled a rise in turnover to FF153bn (\$27.1bn) from FF128.4bn in 1988, with net profits up from FF18.5bn to FF19.8bn over the same period.

Mr Jacques Calvet, chairman, said last year's seven-week wage strike – the worst in Peugeot's history – lost the group 80,000 vehicles, worth FF18.5bn in sales, at a time when European demand was better than expected.

Mr Calvet urged that the political "bedlam" over the European Community's development created by the changes in the East made it necessary that "we should keep our guard up by maintaining the devices protecting our domestic markets." France is one of the five EC member states with bilateral restrictions on Japanese car imports.

Last year's strike, plus existing production shortages for engines and gearboxes, meant Peugeot failed to hit most of its objectives in 1988, even though

total output rose from just over 2m cars and commercial vehicles to a record 2.2m units. Its share of European registrations fell at the same time from 12.9 per cent to 12.7 per cent, though it has risen again since the year-end. That was well short of the group's own target of 13 per cent, which would have been easily achieved had it not been for the strike, said Mr Calvet.

Productivity rose by 4.7 per cent, well below the 8.2 per cent target, while Peugeot's break-even point fell slightly from 1.15m vehicles per year to 1.12m, a fraction above last year's target of 1.1m units.

Net borrowings fell from FF15.5bn in 1988 to FF11.9bn at the end of last year, by which time the group had hoped to eliminate debts entirely, a target it has now passed, so that it now has net cash of FF2.5bn. Four years ago the group's borrowings stood at FF10bn.

Industry forecasts ranged from stagnation to a slight decline in registrations for 1990, though Peugeot's sales were still increasing. The group's registrations rose by 0.5 of a percentage point in the first quarter of this year, lifting its European market share back up to 12.3 per cent.

## Skandia up 80%, plans to increase dividend

By Robert Taylor  
in Stockholm

SKANDIA, Sweden's largest insurance company and private property owner, recorded an 80 per cent improvement in its 1989 group operating profits to SEK1.7bn (\$278.2m) from SEK925m, and plans to lift its dividend to SEK4 a share from SEK3.

"Skandia group has shown a clearly satisfactory result," said Mr Björn Wolmar, chief executive, yesterday. "Despite the very large resources demanded in company purchases and connected reorganisation we have been successful in many markets and can record larger profits and increased capital stock. The foundations have been laid for continuing positive growth during the 1990s."

Only around SEK400m of the group's profits came from its insurance business, with the rest derived from investments. The group's total yield on its capital rose to SEK4.9m last year from SEK1.5m in 1988.

Skandia said its insurance business had worsened in Sweden but was going well in most other markets. The international side boosted despite the liabilities related to Hurricane Hugo and the San Francisco earthquake.

## THF and Repsol plan joint venture

TRUSTHOUSE FORTÉ, the UK hotel and catering group, plans a joint venture with Repsol, Spain's leading supplier and retailer of petrol, to develop 100 units of Little Chefs and Travelodges in Spain over the next five years, writes Andrew Bolger in London.

THF also announced a 13 per cent increase in pre-tax profits to £260m (\$426m) in the year ended January 31.

It blamed the worsening economic climate for a slowdown in the performance of its provincial hotels.

The profits figure included a £66m surplus from property disposals, and £9m from the sale of THF's stake in First Leisure.

## Alarm bells sound in Italy's banks

Haig Simonian on political machinations behind top banking jobs

With just days to go before the annual meetings of some of Italy's biggest banks, there have been signs of unusually keen political interest in the faces likely to sit behind the banks' most senior desks in the years ahead.

Political influence behind bank top appointments in Italy is nothing new, given that much of the financial system is state-owned. Institutions such as Banca Commerciale Italiana (BCI), Credito Italiano and Banco di Roma, the three "banks of national interest" are majority owned by IRI, the state holding company. Istituto Bancario San Paolo di Torino and Monte dei Paschi di Siena are just two of the six "public law banks."

So strong is the state influence that, in one notorious bout in November 1986 deemed "the night of shame" by one Italian newspaper, politicians bargained for hours over the division of top bank jobs. That episode brought Mr Roberto Mazzotta, a Christian Democrat politician not renowned for his knowledge of financial markets, to the presidency of Cariplo, the country's biggest savings bank.

The appointment was largely due to his status as a close aide of Mr Ciriaco De Mita, the then leader of the Christian Democrats who as the biggest political grouping in Italy traditionally get the lion's share of the jobs.

However, banks such as BCI, Italy's most respected and international financial institution, have usually managed to isolate themselves from the party political horse-trading.

Only once in recent history has an outsider been given a top post at BCI, which normally fills executive slots from within its own ranks. Even then, the circumstances were unusual, as Mr Gaetano Stambati, the Christian Democrat politician appointed president (chairman) of the bank in 1972, was a stop gap and, in the words of one colleague, was "frozen in his office" by other executives who kept day-to-day management very much to themselves.

However, recent weeks have seen strong signs that the Government may again be trying to flex its muscles at some of the big north Italian banks. And, with another batch of top



Gianni Zandano: respected figure in Italian banking



Lucio Rondelli: he is due to be replaced shortly



Enrico Braggiotti: keeping his head down for the time being

managers up for re-election, the political tentacles may even be trying to stretch as far as BCI this time round.

Board level appointments at the IRI-owned banks officially have a three-year term, after which incumbents are either re-elected, replaced or go into retirement if they reach the statutory age of 65. Chairmen are officially supposed to step down at 70.

The potential for change is even greater given the fact that some incumbents' original mandates have long expired. At San Paolo, a foundation which operates under somewhat different rules from the three IRI banks, Mr Gianni Zandano's four-year term as chairman formally elapsed on May 4 1987. However, Mr Zandano, one of the most respected figures in Italian banking today, is still in his office at the bank's headquarters in Turin's Piazza San Carlo in line with the rule that, if no new name is put forward, the incumbent stays on.

Eyebrows were first raised at BCI and Credito Italiano – where Mr Lucio Rondelli, the managing director, is due to be replaced – when hints started to emerge in Rome that the banks' annual meetings might have to go into a second session. The rules state that the meetings of the three IRI-owned banks must be held within four months of their December year-end – creating an end-April deadline for approving the accounts and dividend, and, when mandates are up, electing a new board.

The suggestion of a postponement, or more accurately, the need to pass to a "second

convocation" – a method normally required only when the first meeting is inquorate – was the signal which triggered the banks and their allies into thinking that political machinations might be afoot.

For on May 6, a key round of local elections is due, which could provide a barometer of the relative fortunes of the parties in Italy's current five-party coalition. If politicians wanted to extend their influence further into the banking sphere, the imminent expiry of a number of top managers' mandates would provide the perfect opportunity. However, no decisions could be taken politically prior to the elections, leading to the hints from Rome that a second set of annual meetings after the elections might be due, setting the alarm bells ringing at the banks.

Calling further meetings would be almost as embarrassing for IRI as for the banks concerned. For the pretext for holding second assemblies on May 22, May 24 and May 26 in the case of Banco di Roma, Credito Italiano and BCI respectively, is simply to say the least.

As the banks' majority shareholder, IRI can hardly suggest the meetings will be inquorate. Instead, vague excuses have been floated along the lines that it might be necessary to study the banks' figures in detail and without undue haste.

While Banco di Roma will be unaffected, as it is the only one of the three IRI banks whose board is not up for re-election, Credito Italiano and BCI have discreetly pulled out all the stops to defend themselves.

Even Mr Giovanni Agnelli and Mr Leopoldo Pirelli, who sit on the boards of Credito Italiano and BCI respectively, are believed to have made their disapproval of greater politicisation clear.

Such tactics have had some success. There are now signs that IRI is withdrawing its claws. Last week, Mr Franco Nobili, IRI's new chairman, stated that it was not his intention to call a second round of meetings. However, Mr Nobili was more than a little opaque. For he also spoke cryptically of the need to consider the banks' figures, their professionalism and, more ominously, the necessity to insert "new energies" at the top.

With senior Italian banking figures such as Mr Enrico Braggiotti, the chairman of BCI who is also up for re-election, and Mr Rondelli, still keeping their heads distinctly down for the time being, the risk has clearly not yet passed.

The motives behind the current interest in the top-level jobs lie buried deep in the complex nature of Roman politics and the interest of Italy's Socialist party in particular to get a bigger share of the spoils. But the consensus in Milan is that any further politicisation of the financial system, and notably of institutions such as BCI and Credito Italiano, which also play a symbolic role for Italian finances abroad, is likely to do nothing but harm, especially at a time when the country's banks need to keep all their wits about them to keep pace with their bigger European rivals, let alone ever nourish any hope of overtaking them.

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## A 22% INCREASE IN NET EARNINGS IN 1989

In millions of French Francs	1989	1988 (restated)	Percentage Variation
Sales	17,195	14,589	+18.0%
Operating margin	1,862	1,560	+19.4%
Income before non-operating items	936	766	+22.2%
Non-operating items	-	211	-
Net income for the year	936	977	-4.1%
Earnings per share before non-operating items (In French Francs)	59.28	54.18	+9.4%
Net dividend (excluding tax credit)	22.00	20.00	+10.0%

\*an increase of 9% over 1988, on a comparable basis.

The growth registered in 1989 resulted from contrasting developments within the Company's business segments:

- the Human Healthcare segment performed well, mainly because of a 28% increase in sales generated in the overseas markets; the operating margin for the segment also grew satisfactorily, amounting to FF1,503 million despite an on-going commitment to sustain research costs (up by 17% at FF1,302 million);
- the Bio-Activities segment enjoyed sustained sales growth but experienced a decrease in profitability (1989 operating margin - FF475 million), with the Agri-Veterinary sector and, in particular, the Rendering business encumbering the good performances of the Bio-Industries sector;
- the Perfumes and Beauty Products segment performed well in trading areas outside the United States (operating margin - FF145 million) but the results reported for US operations, showing an operating loss of FF87 million in 1989, were poor;
- the contribution to SANOFI's net earnings of associated companies, particularly Yves Rocher and Nina Ricci, progressed very strongly, increasing from FF85 million in 1988 to FF181 million in 1989.

In millions of French Francs	1989	1988
Working capital provided by operations	1,595	1,531
Capital expenditure	2,492	2,483
- including property plant and equipment	1,036	956

The year 1989 was marked by an on-going commitment to high levels of capital expenditure and research costs. Given the proceeds from the issue of shares with warrants in December, 1988, the resulting financing requirements in no way affected the Group's medium and long-term creditworthiness, which remains sound.

The annual general meeting of shareholders will be held on May 29, 1990.

YOUR LIFE TODAY AND TOMORROW

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for an aggregate consideration of

US \$173,000,000

to Hidden Creek Industries

a subsidiary of

ONEX corporation

The undersigned acted as financial advisor to Tate & Lyle PLC.



ScotiaMcLeod Inc.

Toronto

New York

London

## EXPORT FINANCE

The Financial Times proposes to publish this survey on

4 June 1990

For a full editorial synopsis and details of available advertisement positions, please contact

Andrew Muir

On 01-873-4063  
or write to him at:  
Number One Southwark Bridge,  
London  
SE1 9HL

FINANCIAL TIMES  
EXPORT & BUSINESS FINANCE

## INTERNATIONAL COMPANIES AND FINANCE

## Gencor modestly ahead after move to rich ore zones

By Philip Gawth in Johannesburg

A FIRMER gold price and a strategy of cutting ore production rates and concentrating on exploiting richer ore zones saw the 11 main mines managed by the Gencor group of South Africa increase working income by 5 per cent to R206m (US\$77m) during the March quarter.

However, Mr Gary Maude, head of the group's gold division, believes a lower gold price and the prospect of increased industrial action will make these results difficult to repeat in the second quarter. Worst hit by industrial action was Unisel in the Orange Free State which lost six days following an illegal strike by black miners. This caused a backlog among white colleagues who, fearing for their safety, refused to go underground. An unsettled atmosphere persists on the mine. The substantial fall in production which resulted saw unit costs soar and income after taxation was down at R7.8m from R11.8m.

Mr Maude says heightened industrial unrest can be traced back to President F.W. de Klerk's ground-breaking speech on February 2 and the release, nine days later, of Mr Nelson Mandela, the black nationalist leader. Mr Maude expects the problem, which he describes as political action aimed at the state more than

at the employer, to continue during the year.

Other problem mines were Stilfontein and Grootvlei. The latter suffered a one-off setback when a fire in one of the shafts led to two weeks lost production. Stilfontein may well be the first closure in the group, which has a policy of seriously considering closure when a mine makes a loss for three consecutive months.

At the current gold price the mine, which seeks to make a profit from mining the low-grade Ventersdorp Contact Reef, is running at a loss. Mr Maude confirmed the mine is in a "very precarious position."

The four mines in the Evander area - Bracken, Kinross, Lesie and Winkelbank - all performed well. All four showed increased yields and Bracken did well to lift its after-tax income to R2.2m from R460,000 a year ago. Star performer, though, was Winkelbank where production was boosted by the near completion of the number six shaft. Income after taxation increased to R33.1m from R30.4m on the back of an increase in ore milled and higher yields.

Good results were also achieved at St Helena, Buffelsfontein and Beatrix, all of which achieved yields of 6 grammes per ton or better while holding costs.

## Brierley to launch bid for Telecom Corp of NZ

By Terry Hall in Wellington

BRIERLEY Investments (BIL), the New Zealand investment company, said yesterday it is bidding for the controlling shareholding in Telecom Corporation of New Zealand, which the New Zealand Government is to sell shortly.

The sale has aroused international interest with up to 12 leading telecommunications companies reported to be interested. BIL is believed to be the principal New Zealand contender. There is intense public opposition to the sale with a weekend poll saying more than 90 per cent of voters were opposed.

Yesterday BIL said it was seeking Commerce Commission approval to buy the majority share, and Mr Paul Collins, its chief executive, said this could be bought in partnership with an overseas company. Mr Collins said BIL, with a "war chest" of more than NZ\$2bn (US\$1.16bn) in liquid assets, had more than enough money to buy Telecom Corp itself, so only a partner which could provide experience and expertise in telecommunications would be sought. "The partner is not fundamental to the exercise," he said.

The deadline for preliminary bids closed last week. From these the Treasury, the government agent for the sale, will identify parties, who can then scrutinise Telecom Corp's accounts before tabling their final offers.

BIL has already been successful in acquiring the main stake in another state asset sale in New Zealand. It is also bidding for a share of Crown Assets.

Under the conditions for sale, Brierley could buy 100 per cent of Telecom Corp but would have to sell at least NZ\$500m to the New Zealand public. However, it could buy these on the open market later to regain full control.

The sale is expected to raise between NZ\$3bn and NZ\$4bn.

## PanPac share issue oversubscribed

PAN PACIFIC Publications the first company to be listed this year on the Singapore Exchange and Automated Quotation System (Sesdaq), the republic's second-board stock market, was oversubscribed by 15 times, AP-D reports.

The company said 25,955 applicants applied for a total of 124m shares bringing in a total of S\$74.4m (US\$40m).

## S Korea companies suffer 5.5% fall in combined exports

By John Ridding in Seoul

SOUTH KOREA'S seven large general trading companies suffered a difficult first quarter, with combined exports falling by 5.5 per cent, largely because of the continued depreciation of the Japanese yen against the dollar.

The downturn reflects a weakening in South Korea's overall export performance so far this year, resulting from currency movements, higher labour costs and weakening demand in its principal markets. In the January-March period, South Korea reported a trade deficit of \$2.8bn.

Total merchandise exports of the seven companies during the first three months amounted to \$4.9bn, compared with \$5bn in the same period last year. Shipments by the seven companies - Samsung, Daewoo, Lucky Goldstar, Hyundai, Sunkyoung, Ssangyong and Hyosung - represented 35 per cent of South Korea's total exports during the period.

The seven companies, which are all part of larger conglomerates, experienced differing fortunes during the period. Lucky Goldstar was the worst

affected, with exports falling 26 per cent to \$601m. Samsung, the largest of the seven, suffered a 7.6 per cent fall in exports to \$1.35bn. Daewoo estimated that its exports fell from \$750.53m to \$710m and Sunkyoung also suffered a downturn.

Hyundai, however, the second largest trading company, increased exports from \$1.09bn to \$1.15bn and Ssangyong and Hyosung also improved their performance over last year.

Analysts said that although the South Korean currency had depreciated so far this year, and has fallen by more than 4 per cent against the dollar since the beginning of January, the yen had fallen much faster. Since many South Korean exports compete directly with Japanese goods, particularly in the automobiles and electronics sectors, South Korean goods have suffered a reduction in competitiveness.

However, an improvement is expected from the end of the second quarter as many exporters have postponed shipments because of expectations of further currency depreciation.

## Marine Midland dips 85% in first quarter

By John Elliott in Hong Kong

MARINE MIDLAND Bank, the New York-based subsidiary of the Hongkong and Shanghai Banking Corporation, now undergoing a radical restructuring, yesterday announced first-quarter net profits of US\$6m, which was 55 per cent down on \$40.2m in the same period last year.

The figures include provision for loan losses of \$80m, up from \$54m. They follow a net loss of \$120m in the fourth quarter of last year when provision for loan losses was boosted to \$263.3m by a \$175m special charge.

The parent company said in Hong Kong last night that the downturn in the first quarter reflected the financial impact of a series of restructuring initiatives which included streamlining operations and repositioning the business on its home base of up-state New York.

Reductions in the balance sheet had also taken place, bringing total assets at the end of the quarter down to \$25.7bn from \$35.8bn a year ago and

\$27.1bn at the end of last year. Marine reported that it has sold investments in Society Corporation and First Pennsylvania Corporation, resulting in gains of \$3m and \$8m respectively.

Another gain of \$3.2m came from the sale of Marine's credit card processing business to National Data Corporation.

Sale of a \$160m portion of Marine's national education loan portfolio resulted in a gain of \$3.8m.

A provision of \$31m was made to accommodate costs of staff reductions and closing out-of-state offices.

The Hongkong Bank has extended to the end of 1992 a commitment to maintain Marine's capital and to support a minimum tier 1 capital ratio of 5 per cent under regulatory capital adequacy guidelines. At the end of last month Marine's estimated tier 1 capital adequacy was 4.1 per cent of risk adjusted assets, compared with 3.72 per cent a year ago and 3.77 per cent at the end of last year.

## FLANDERS

The Financial Times proposes to publish this survey on:

8th May 1990

For a full editorial synopsis and advertisement details, please contact:

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FINANCIAL TIMES  
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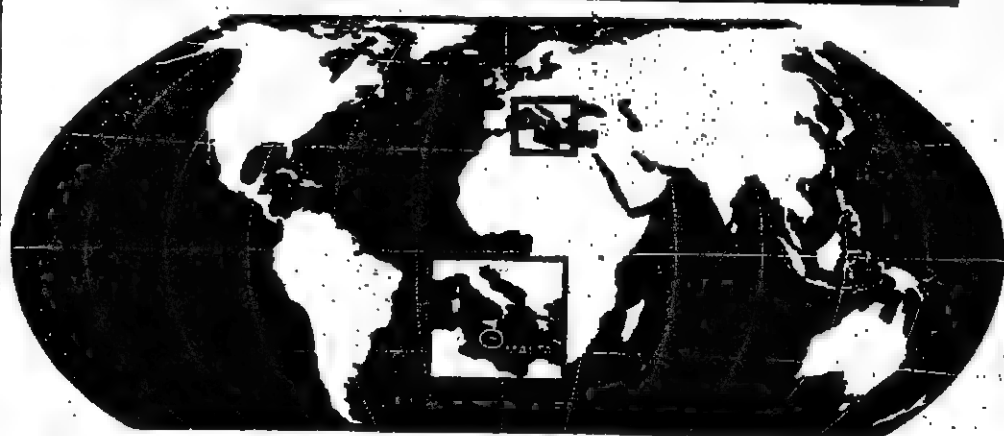


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- Working costs per kilogram increase by 3,9%
- Working profit up by 5% to R205 million



## GOLD MINING COMPANIES' REPORTS FOR THE QUARTER ENDED 31 MARCH 1990

All companies mentioned are incorporated in the Republic of South Africa

- Dividends declared
- Bracken 30 cents per share
- Kinross 60 cents per stock unit
- Leslie 40 cents per share
- Unisel 50 cents per share
- Winkelhaak 165 cents per share

The GROOTVLEI  
Proprietary Mines Limited

Company Registration No. 01/02088/06

## Shaft accident affects production

Issued capital - 11 438 816 stock units of 25 cents each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	40 883	82 347
Ore milled - underground	(t)	168 000	190 000
Gold produced - surface dump	(g)	6 000	20 000
Gold produced - total	(g)	174 000	210 000
Yield - underground	(g/t)	0,3	1,2
Yield - combined	(g/t)	3,8	4,1
Working revenue	(R'000)	94 057	22 478
Working costs	(R'000)	20 442	27 818
Working income	(R'000)	12 311	112,88
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		22 448	27 472
Working costs		22 102	27 701
Working income		346	771
Sundry income - net		1 384	1 008
Taxation		147	131
Income before taxation and State's share of income		1 587	1 648
Income after taxation and State's share of income		1 233	881
Capital expenditure		2 192	2 474
Dividend declared		268	210

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>DEVELOPMENT</b>			
Advanced	(m)	288	242
Advanced on reef	(m)	181	120
Channel width	(m)	78	18
Average value - gold	(g/t)	0,8	3,3

**REMARKS**

- Estimated capital expenditure for the next six months - R0,5 million.
- During the quarter an accident occurred at No. 4 Shaft which resulted in a loss of production. Operations are back to normal.
- Insurance claims in respect of the shaft accident are included in sundry income.
- Grootvlei has assumed management responsibility for Marikwa Mine, a division of Randers Limited, with effect from 1 April. The mine is produced from the winding down of Marikwa's operations is being treated as dormant. This arrangement enables the plant clean-up at Marikwa to proceed.
- The sale of an unlisted investment realised R0,5 million, which has been included in capital recoupment.

UNISEL  
Gold Mines Limited

Company Registration No. 72/10604/08

## Production results adversely affected

Issued capital - 28 000 000 shares of no-par value.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	38 220	46 081
Ore milled - underground	(t)	121 000	137 000
Gold produced - surface dump	(g)	3 000	10 000
Gold produced - total	(g)	3 000	10 000
Yield - underground	(g/t)	0,3	0,3
Yield - combined	(g/t)	0,3	0,3
Working revenue	(R'000)	34 078	32 533
Working costs	(R'000)	18 127	21 220
Working income	(R'000)	15 951	11 313
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		34 078	32 533
Working costs		18 127	21 220
Working income		15 951	11 313
Sundry income - net		1 828	1 628
Taxation		1 828	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>DEVELOPMENT</b>			
Advanced	(m)	265	88
Advanced on reef	(m)	422	26
Channel width	(m)	104	188
Average value - gold	(g/t)	7,9	8,2

**REMARKS**

- Estimated capital expenditure for the next six months - R10,8 million.
- Interim dividend No. 21 of 50 cents per share was declared.
- A fire in 418 scope and telephony in the western section of the mine during the December quarter necessitated major relocations. This quarter's results were adversely affected by the reorganisation.
- On 18 March an illegal strike started on the mine, apparently as part of a NUM campaign throughout the mining industry. Production ceased for a period of six days and the situation is still tense. A capital amount of R23 million has been approved for development into the Tarka and Jurgenshof areas.
- The sale of an unlisted investment realised R0,2 million, which has been included in capital expenditure.

ST. HELENA  
Gold Mines Limited

Company Registration No. 05/0743/05

## Improved yield

Issued capital - 9 625 000 ordinary shares of R1 each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	180 188	119 708
Ore milled	(t)	437 000	478 000
Gold produced	(g)	2 620	2 710
Working revenue	(R'000)	32 758	32 000
Working costs	(R'000)	27 777	28 578
Working income	(R'000)	4 981	3 422
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		32 758	32 000
Working costs		27 777	28 578
Working income		4 981	3 422
Sundry income - net		1 628	1 628
Taxation		1 628	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>DEVELOPMENT</b>			
Advanced	(m)	328	388
Advanced on reef	(m)	227	210
Channel width	(m)	112	141
Average value - gold	(g/t)	9,3	4,5

**REMARKS**

- Estimated capital expenditure for the next six months - R7,2 million.
- Approval has been given for exploratory development in the No. 10 Shaft area at a cost of R8 million in the current year.
- The sale of an unlisted investment realised R0,2 million, which has been included in capital expenditure.

## Oryx mine

(A division of St. Helena Gold Mines Limited)

## Subvertical main shaft sinking started

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	125 570	134 038
Ore milled	(t)	287 000	308 000
Gold produced	(g)	3 000	10 000
Working revenue	(R'000)	32 871	30 703
Working costs	(R'000)	28 742	29 474
Working income	(R'000)	4 129	1 229
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		32 871	30 703
Working costs		28 742	29 474
Working income		4 129	1 229
Sundry income - net		1 828	1 628
Taxation		1 828	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

**REMARKS**

- Underground development on 4 and 5 levels associated with the subvertical shafts has been completed.
- The main shaft rock and stage winders have been installed and are in operation.
- Civil construction of the metallurgical plant has started.
- Capital expenditure is financed by loans from Oryx Gold Holdings Limited.
- To date capital expenditure of R448 million has been committed, of which R418 million has been spent.
- The attention of shareholders is drawn to the quarterly report of Oryx Gold Holdings Limited, which appears elsewhere in this edition.

BUFFELSFONTEIN  
Gold Mining Company Limited

Company Registration No. 06/3334/08

## Steady performance

Issued capital - 11 000 000 ordinary shares of R1 each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	125 570	134 038
Ore milled	(t)	287 000	308 000
Gold produced	(g)	3 000	10 000
Working revenue	(R'000)	32 871	30 703
Working costs	(R'000)	28 742	29 474
Working income	(R'000)	4 129	1 229
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		32 871	30 703
Working costs		28 742	29 474
Working income		4 129	1 229
Sundry income - net		1 828	1 628
Taxation		1 828	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

**REMARKS**

- Estimated capital expenditure for the next six months - R0,5 million.
- Interim dividend No. 12 of R14 million was declared in respect of the preference shares.
- Repayment costs of R1,2 million are included in working costs.
- The sale of an unlisted investment realised R1,0 million, which has been included in sundry income.

## Beatrix mine

(A division of Buffelsfontein Gold Mining Company Limited)

## Yield maintained with good cost control

In terms of an agreement, 18 percent of the distributable income from the Beatrix mine is attributable to Buffelsfontein and 84 percent to Beatrix Mines Limited.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	111 905	118 476
Ore milled	(t)	254 000	264 000
Gold produced	(g)	3 000	10 000
Working revenue	(R'000)	32 758	32 000
Working costs	(R'000)	27 777	28 578
Working income	(R'000)	4 981	3 422
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		32 758	32 000
Working costs		27 777	28 578
Working income		4 981	3 422
Sundry income - net		1 628	1 628
Taxation		1 628	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

**REMARKS**

- Estimated capital expenditure for the next six months - R0,5 million.
- The attention of shareholders is drawn to the quarterly report of Beatrix Mines Limited, which appears elsewhere in this edition.
- The sale of an unlisted investment realised R0,2 million, which has been included in capital expenditure.

## Chemwes Limited

Company Registration No. 04/0237/08

(A subsidiary of St. Helena Gold Mining Company Limited)

Issued capital - 1 000 shares of R1 each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>FINANCIAL RESULTS (R'000)</b>			
Net income after taxation		1 142	1 805
Capital recoupment		113	58
Dividend declared		-	680

**REMARKS**

- The sale of an unlisted investment realised R0,1 million, which has been included in capital recoupment.

STILFONTEIN  
Gold Mining Company Limited

Company Registration No. 05/3412/06

## VCR mining hits profits

Issued capital - 12 082 920 shares of 50 cents each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	54 391	61 322
Ore milled - underground	(t)	291 000	291 000
Gold produced - surface dump	(g)	152 000	247 000
Gold produced - total	(g)	450 000	500 000
Yield - underground	(g/t)	3,4	4,0
Yield - combined	(g/t)	1,0	0,8
Working revenue	(R'000)	33 731	32 815
Working costs	(R'000)	22 710	22 998
Working income	(R'000)	11 021	9 817
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		33 731	32 815
Working costs		22 710	22 998
Working income		11 021	9 817
Sundry income - net		3 321	2 253
Taxation		743	884
Income before taxation and State's share of income		2 619	837
Income after taxation and State's share of income		1 306	762
Capital expenditure		2 192	2 474
Dividend declared		1 536	207

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>DEVELOPMENT</b>			
Advanced	(m)	363	1 537
Advanced on reef	(m)	41	668
Channel width	(m)	30	98
Average value - gold	(g/t)	12	4,8

**REMARKS**

- Estimated capital expenditure for the next six months - R1,2 million.
- In line with lower V.C.R. values, the underground recovery grade has dropped. This situation is expected to persist.
- The sale of an unlisted investment realised R1,5 million, which has been included in capital recoupment.

WEST RAND  
Consolidated Mines Limited

Company Registration No. 01/01975/06

## Encouraging development results

Issued capital - 4 250 000 ordinary shares of R1 each.

	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m³)	27 188	28 800
Ore milled - underground	(t)	94 000	114 000
Gold produced - surface dump	(g)	123 000	112 000
Gold produced - total	(g)	217 000	224 000
Yield - underground	(g/t)	0,3	0,3
Yield - combined	(g/t)	0,3	0,3
Working revenue	(R'000)	33 271	32 904
Working costs	(R'000)	28 742	29 474
Working income	(R'000)	4 529	3 429
Gold price received	(R/g)	33 889	32 398
Gold price received	(R/kg)	418	375
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue		33 271	32 904
Working costs		28 742	29 474
Working income		4 529	3 429
Sundry income - net		1 828	1 628
Taxation		1 828	1 628
Income before taxation and State's share of income		13 775	10 455
Income after taxation and State's share of income		10 455	7 865
Capital expenditure		2 908	11 872
Dividend declared		1 400	1 400

**REMARKS**

- Estimated capital expenditure for the next six months - R1,0 million.
- The sale of an unlisted investment realised R0,4 million, which has been included in capital recoupment.

BRACKEN  
Mines Limited

Company Registration No. 59/0126/08

## Gold output maintained

Issued capital - 14 000 000 shares of 90 cents each.

Issued capital — 14 000 000 shares of 90 cents each			
	Quarter ended 31.3.1990	Quarter ended 31.12.1989	6 months ended 31.3.1990
<b>OPERATING RESULTS</b>			
Mined	(m <sup>3</sup> )	37 254	43 053
Ore milled	(t)	140 000	146 000
Yield	(t/m <sup>3</sup> )	3.8	3.6
Gold produced	(kg)	21 530	21 530
Working revenue	(R'g)	37 778	32 555
Working costs	(R'g)	31 713	31 100
Working costs	(R'g/m <sup>3</sup> )	116.28	115.13
Working income	(R'g)	6 065	1 585
Gold prices received	(R'g/kg)	283	32 895
	(R'g)	411	287
<b>FINANCIAL RESULTS (R'000)</b>			
Working revenue	18 954	16 996	36 950
Working costs	16 552	16 177	32 729
Working income	2 402	1 819	4 221
Sundry income-net	891	934	1 725
Tribute and royalty payments	(43)	(43)	(86)
Income before taxation and State's share of income	4 308	1 658	5 910
Taxation and State's share of income	2 291	429	2 720
Income after taxation and State's share of income	2 017	1 229	3 190
Capital expenditure/reinvestment	(1 332)	156	(1 176)
Dividend declared	4 200		4 200
<b>NET ASSETS</b>			



## UK COMPANY NEWS

## Undertaking from a 5% holder boosts bidder's stake to 38.2% Swedes raise offer for Runciman

By Clare Pearson

AVENA, the diversified Swedish group, yesterday turned up the heat on Walter Runciman when it announced a 20 per cent increase in its hostile cash offer for the shipping, security equipment and insurance concern.

The new offer is 635p cash per share, up from the original 520p. Together with entitlement to a final 9p dividend this values the company at £57.4m. A loan note alternative has also been added.

Avena's new terms met an immediate rejection from Viscount Runciman, chairman, who described them as utterly inadequate.

Avena also said it now spoke for 38.2 per cent of the issued share capital, having this week gained an undertaking to accept from a 5 per cent holder. The bidder itself owns a 28.5 per cent block.

In very low volume, the shares rose 95p to 638p following the announcement of the revised terms, which under Takeover Panel rules could be further improved up till the close of business tomorrow.



Viscount Runciman: the new terms are utterly inadequate

Mr Hans Eliasson, Avena's chairman, was yesterday morning in Glasgow talking to Scottish Amicable Investment Managers, holder of an 8.4 per cent stake.

Runciman already laid its cards on the table last week with an upbeat 1990 forecast. It said pre-tax profits would be not lower than £7.5m.

Earlier during the offer period it announced 1989 pre-tax profits of £5.6m, a 38 per cent increase.

At the offer price Avena's new terms provide Runciman with a prospective p/e of 11.8.

Viscount Runciman said this was wholly inadequate in the light of the company's record over the past five years, and "excellent future prospects."

Runciman (Trustees) owns about 15 per cent while more distant reaches of the family are thought to account for about a further 15 per cent.

A range of investors including some private shareholders account for the balance. The 5 per cent stake accepted this week is thought to have come from Frolific Unit Trust Managers.

Discussion during the closing stages of the offer is likely to focus on the sustainability of currently buoyant demand for liquid gas carriers, which Runciman operates as a member of the Unigas consortium and which form its main source of earnings.

## ADT lifts stake in Christies to over 15%

By Clare Pearson

ADT, the vehicle services and security group headed by Mr Michael Ashcroft, now accounts for 15.1 per cent of the ordinary shares of Christies International, the auction house, after further market purchases over the last week.

On April 10, ADT said it "reserved all rights" in relation to its investment and it had "no present intention" of making an offer unless a competitive situation arose.

In its latest purchases, ADT appears to have taken advantage of shares that became available in the market after it put out its statement. It also said on Tuesday last week that it had increased its stake in the ordinary shares to 13.8 per cent, up from 10.6 per cent.

Analysts noted yesterday that ADT's statement last week had also signalled that, if it were to contemplate making a bid, it would prefer to do so in a white knight role.

Christies is considered a difficult target for a hostile bid. Such a move would be likely to ruffle its staff, on whose relationships with art sellers and buyers its business so delicately hinges.

Christies' share price yesterday closed at 334p, up 3p on the day. The company itself said it welcomed long-term investors.

Taking into account the special A ordinary shares, ADT's stake now stands at 13.4 per cent of the total share capital.

Christies' share register features a number of other sizeable holdings including that of Aska International, the unquoted Japanese finance and insurance group which joined last autumn after acquiring 6.5 per cent of the total share capital.

The Wallenberg group, controlled by Sweden's leading industrial family, recently increased its investment from about 3 to 8.5 per cent. This was after Caledonia Investments, the Cayzer family's quoted vehicle, last month disposed of a 5.1 per cent holding.

Caledonia then said it thought the outlook for Christies' shares, and for the art market, was one of quieter trading than last year.

## Midsummer change of heart fails to deter Euro Leisure

By Andrew Bolger

EUROPEAN LEISURE, the night club and theme bars group, said it was determined to proceed with its offer for Midsummer Leisure, in spite of what it described as the "illogical and unexpected" reversal by the board of Midsummer of its recommendation of the deal.

The directors of Midsummer, the pub, disco and snooker club operator, irrevocably pledged their 15.1 stake towards acceptance when the all-paper offer was launched, but have now advised shareholders to reject the deal in view of the subsequent fall in the value of European Leisure's shares.

European Leisure said yesterday: "The latest position of the Midsummer board is astonishing in as much as it has now decided to reject a bid which at yesterday's stock market close valued Midsummer at some 17 per cent more than the value of the bid at the time of the posting of the offer document."

"That document included a thorough endorsement by the Midsummer board of the commercial and strategic merits of

combining the two businesses and the chairman of Midsummer referred to 'an attractive opportunity to participate in the benefits of combining the

"Nothing in Midsummer's latest announcement gives cause for any confidence in its future prosperity as an independent company in the absence of any published forecast of profits and gearing."

— European Leisure

leisure activities and management expertise of both companies."

The board of European Leisure remained convinced of those advantages and would be writing to Midsummer shareholders to contrast the immediate benefits of the European Leisure offer with the questionable future for an independent Midsummer.

European Leisure added:

"As recently as last week, the directors of Midsummer stressed the constraints on earnings faced by an independent Midsummer, both in their letter to their shareholders and in joint presentations to institutions in London."

"Nothing in Midsummer's latest announcement gives cause for any confidence in its future prosperity as an independent company in the absence of any published forecast of profits and gearing."

Mr Adam Page, chairman of Midsummer, said his company's gearing position would be addressed by accelerating proposed disposals. His directors had never doubted the future prosperity of Midsummer as an independent company.

European Leisure closed unchanged at 72p. At that level, its offer values each Midsummer share at 154p. Shares in Midsummer closed down 4p at 113p.

When the Midsummer directors accepted the offer, European Leisure shares stood at 80p, valuing each Midsummer share at 175p.

## BAT details proposals for Wiggins Teape

By Nikkil Tait

BAT INDUSTRIES, the tobacco-based conglomerate which has been restructuring in the wake of the bid threat from Sir James Goldsmith's Hoylake consortium, yesterday gave further details on the proposed capital structure of Wiggins Teape Appleton, the paper business which it plans to demerge in June.

Wiggins Teape Appleton, it said, would have shown net debt at end-December of £170m, with a further £45m of trade debtors financed off balance sheet.

This would have compared with shareholders' funds — again taking account of capital adjustments — of £870m at the same date.

City forecasts for the forthcoming market capitalisation of Wiggins Teape Appleton have varied somewhat, and BAT said tactfully that it believed "a few analysts will probably find the information useful".

As previously announced,

full listing particulars for the new company, which groups BAT's paper industry subsidiaries, will be published on May 10. Dealings should start on June 1.

Although analysts were previously uncertain about the gearing level which the paper company would carry at its launch, yesterday's figures caused little surprise.

One pundit suggested that the debt looked very modest in comparison with other international paper groups, and estimates for a £1.2bn-£1.5bn market capitalisation for Wiggins Teape Appleton were broadly confirmed.

● In the US, regulatory authorities in Texas and Oregon yesterday granted a continuance of up to 90 days to Axa-Midi Assurances, the French company which wants to buy BAT's Farmers subsidiary from Hoylake if the Goldsmith consortium makes a successful bid for BAT.

The Axa/Hoylake request for a delay followed an adverse regulatory ruling from the California insurance authorities — one of nine state insurance departments which must bless these arrangements before a new Hoylake bid for BAT can go ahead.

The would-be acquirers have said they will submit revised proposals, which they hope will meet California's requirements.

Similar continuance requests have been filed by Axa and Hoylake in the other four states which have held hearings on the matter.

Assuming that they follow Texas/Oregon's lead, the US regulatory proceedings will now grind to a halt for several weeks at least.

There is still some uncertainty as to how quickly revised Axa/Hoylake filings have to be made in California, although the target seems to be within one month of the April 9 ruling.



Sir James Goldsmith, head of the Hoylake consortium

Farmers, however, could then seek a further "discovery" period arising from the new filings, and some states might hold additional hearings on the matter. According to BAT, there was mention in Oregon of an additional hearing as late as August 24.

## Receivers appointed to Equity & General's asset leasing side

By Andrew Hill

RECEIVERS have been called in to administer the loss-making financial services operations of Equity & General.

Barclays, the group's bank, appointed receivers to its asset leasing activities at the board's request.

The administrative receivers — Mr John Richards and Mr Anthony Broughton of the accountancy firm Touche Ross — have not been appointed to Equity's profitable motor division, which owns a string of motor dealerships.

Neither the receivers nor Equity's directors could comment on yesterday's brief announcement.

In February, Equity announced it planned to dispose of the finance division,

which it said had been hit by high interest rates, and added it would sell two freehold properties to help reduce gearing.

It also warned that significant losses at the division would overshadow the performance of the motor operation so that the group as a whole would only produce nominal trading profits for 1989.

The shares were suspended at 20p some six weeks ago, when it said discussions were under way which might have "a significant impact on the company."

Two companies have stakes of 10 per cent or more in Equity: Ibrahim Hussain Marafie & Sons Contractors & Traders, which is headed by one of the group's directors, and ICS, a private software

company which had expressed an intention to buy up to 20 per cent of Equity.

The profits warning, suspension and appointment of receivers have come less than a year after a bullish statement by Mr Lionel Altman, Equity's chairman, at last July's AGM.

"I believe there is a bright and encouraging future for the company and its shareholders," he said at the time, highlighting a 60 per cent increase in 1988 pre-tax profits to £793,000.

Equity's acquisition programme stagnated for more than three years — from 1984 to 1988 — after the company requested a Department of Trade and Industry inquiry into dealings in its own shares.

## FENCHURCH INSURANCE GROUP

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# AUSTIN

### RESULTS FOR THE YEAR ENDED 31 JANUARY 1990

	1990 £'m	1989 £'m
Turnover	84.9	78.9
Trading Profit	9.9	9.9
Interest costs	3.0	1.8
Profit before tax	6.9	8.1
Earnings per share	17.3p	18.7p
Recommended final dividend	9.5p	9.0p

The Group's turnover rose by 7.7 per cent in 1989. Our manufacturing division performed strongly, particularly in overseas markets, led by the success of our Austin Reed International and Chester Barrie labels.

Interest rates inevitably impacted on the performance of our retail division in the UK, with sales from our 43 shops rising by 4 per cent. Nonetheless, with a strengthened management team, a fresh merchandising strategy and a healthy balance sheet, we are well placed for renewed growth once the retail market begins to recover.

# REED



## UK COMPANY NEWS

Portfolio increase and rationalisation of investments help growth  
**Helical Bar rises 19% to £14.5m**

By John Thornhill

HELICAL BAR dispelled some of the gloom surrounding the property sector by announcing a 19 per cent improvement in annual pre-tax profits and a 48 per cent rise in net assets per share.

Profits before tax at the property investment and trading company rose from £12.2m to £14.5m in the year ended January 31 1990, while fully diluted assets grew to 429p (301p). The announcement prompted a 9p increase in the share price to 289p.

Mr Michael Slade, managing director, attributed the profits increase to the growing size of the investment portfolio, trading and development profits from a project for British Petroleum at 99 City Road, London, the pre-sale of two

buildings in Bristol, and rationalisation of its south Wales investments.

Gross profits rose to £23.8m (£18.3m), but were held back at the pre-tax level by substantially increased net interest charges of £15.6m (£3.8m).

Rents receivable grew strongly to £14.7m (£8.47m) and benefit came from extraordinary profits of £2.85m (£1.92m) arising from the sale of investment properties.

Helical stopped its property development activities in 1988 in anticipation of the tightening market. "We are now sitting calmly looking at what is happening in the market and planning to capitalise on it. Our management is positively looking to score and is not just fire fighting," he said.

Fully diluted earnings increased to 35.8p (31.5p). The final dividend of 7.6p brings the total to 10p (5.9p), a 72 per cent increase.

## COMMENT

There is wide admiration in the City of Michael Slade's reading of the property market but there are doubts that even he can escape the constraints of the distressed sector. Helical did well to lessen its exposure to development by moving into industrial property at an opportune moment. And although it has accumulated a host of assets in relatively buoyant parts of the country, it will still suffer the same turbulence as others. The high level of gearing — at about 140 per cent — is not a great problem

financially because of the strong flow of rental income but it will limit the flexibility in taking full advantage of possible acquisitions. Helical has a declared aim of increasing net asset value to 500p per share by the year end, but analysts are less sanguine and suggest that anything over 500p would represent a good performance in the circumstances. It is especially difficult to estimate potential pre-tax profits but they are unlikely to move much ahead of last year's level of about £14m. Helical is regarded as one of the best-run companies in the property sector and is a safe hold, but few will be tempted to clamber aboard at present given the still uncertain outlook for the market.

## Partial buy-out planned at Laurence Prust

By Richard Waters

LAURENCE PRUST, the small institutional brokerage firm owned by Credit Commercial de France, is the latest London broker to plan a partial return to ownership by its managers.

A management group led by Mr Alan Treacy, its chief executive, proposed a partial buy-out of the firm, which employs 80 people, earlier this month, the bank said yesterday.

The proposal was welcomed by Mr Anthony Greayer, chief executive of CCF's London operations, although he said that it was too early to tell what proportion of shares might be returned to management.

Hoare Govett, owned by Security Pacific, has put forward a similar proposal for a partial buy-out, while the managers of Sheppards have already acquired half of the firm's shares from its parent, BAIL, a consortium-controlled bank.

The growing trend towards the unscrambling of links created at the time of Big Bang in 1986 follows the disenchantment of new owners

with the losses that have been sustained by their UK brokerage operations, as well as an admission in some quarters that the acquisitions were strategically unnecessary from the beginning.

Mr Greayer said that a share distribution operation in London, such as that provided by Laurence Prust, was not vital to CCF's plans to develop in investment banking.

He added: "The key element is to give the management the incentive, the drive, to manage the business well in a very difficult market. Cost management is crucial."

The firm, which has equity research and sales operations as well as a corporate broking arm, sustained losses of about £1m last year.

Mr Greayer refused to comment on what would happen to Laurence Prust if the buy-out proposal failed.

"I don't think that that's really the issue. We have had an approach from management and are considering it," he said.

## NEWS IN BRIEF

**CASTLE COMMUNICATIONS:** Rights issue of 1.12m new ordinary 5p shares at 400p each has been taken up in respect of 1.07m shares (94.3 per cent). Balance sold in the market at 489p per share.

**CLAYTON PROPERTIES:** now owns 13.71m ordinary shares (77.1 per cent) in Dunlop House Group, following acceptance in respect of 3m ordinary (18.3 per cent).

**COOKS INDUSTRIES:** At the AGM shareholders approved the merger with Bioplan Holdings and the USM donation of the enlarged group. The offer for Bioplan is now unconditional and closed. Six more health authorities had selected Bioplan with which to negotiate partnership agreements for the development of private health care facilities. Those projects expected to involve the design and development of

new private hospitals and day surgery units on NHS hospital campuses.

**FIRST MARYLAND Bank,** part of Allied Irish Bank group, reported first quarter net income of £18.95m (£14.83m).

**HEPWORKS:** An EGM has approved the acquisition of Société Financière Saunier Duval and the issue of £100m 11.25 per cent convertible capital bonds 2005. By 3pm on April 13, acceptance of the offer of capital bonds to qualifying ordinary holders were received in respect of 56.08 per cent of issue. Balance will be allotted on April 24 to those persons with whom the bonds were provisionally placed.

**LIFE SCIENCES:** Recent rights issue accepted in respect of 38.4m shares (94.8 per cent). **MAJEDIE INVESTMENTS** is paying an interim dividend of

2.5 (2p) from earnings of 4.18p (3.25p) for half year ended March 31 1990. Net asset value 340p (309p). Franked investment income £388,000 (£796,000) and unfranked £299,000 (£363,000). Company continued to maintain high liquidity.

**RAMUS HOLDINGS:** The net assets of Kestrel Building Supplies, which are being acquired, have been evaluated at £292,688. The consideration will be satisfied by £145,688

cash and the allotment of 800,000 new ordinary shares (4.5 per cent of existing equity). The acquisition is expected to add annual turnover and pre-tax profit of £3m and £100,000 respectively.

**TELEMETRIX** has sold its Danish subsidiary Trend Communications to the Jutland Telephone Company. The sale realised £1.08m and Jutland also took over bank borrowings of £600,000.

## DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding dividend	Total for year	Total last year
Aspen Comms 5 — fin	5.4	June 8	4.5	7.9	6.5
Austin Reed — fin	6.5	—	6	9.5	9
Densitron — fin	1.95	—	1.85	2.35	2.35
Double Head — fin	0.5	July 2	0.55	0.65	0.57
English Nat Prod — fin	11.05	June 20	8.85	15.6	15
English Nat Prod — int	8.8	June 20	5.4	10.9	8.1
Essexor Dual IT — int	2.35	—	2	—	—
Geors Gross — fin	1	July 3	1	1	1
Helical Bar — fin	7.6	July 2	5	10	5.8
Majedie Inv — int	2.5	July 6	2	—	—
Prestrich — int	0.5	June 6	0.5	—	—
Rae Brothers — fin	0.25	—	0.25	—	—
T&S Stores — fin	2.81	—	1.825	4	2.825
Treva World 5 — fin	8	—	8	127	10
Trusthouse Ports — fin	7.15	July 2	5.94	10.55*	8.4

Dividends shown pence per share net except where otherwise stated. \*Equivalent after allowing for scrip issue. †On capital increased by rights and/or acquisition issues. ‡£0.01 stock. §£0.0001 stock. ¶Third market. †For 15 months. ‡Includes 10 special payment.

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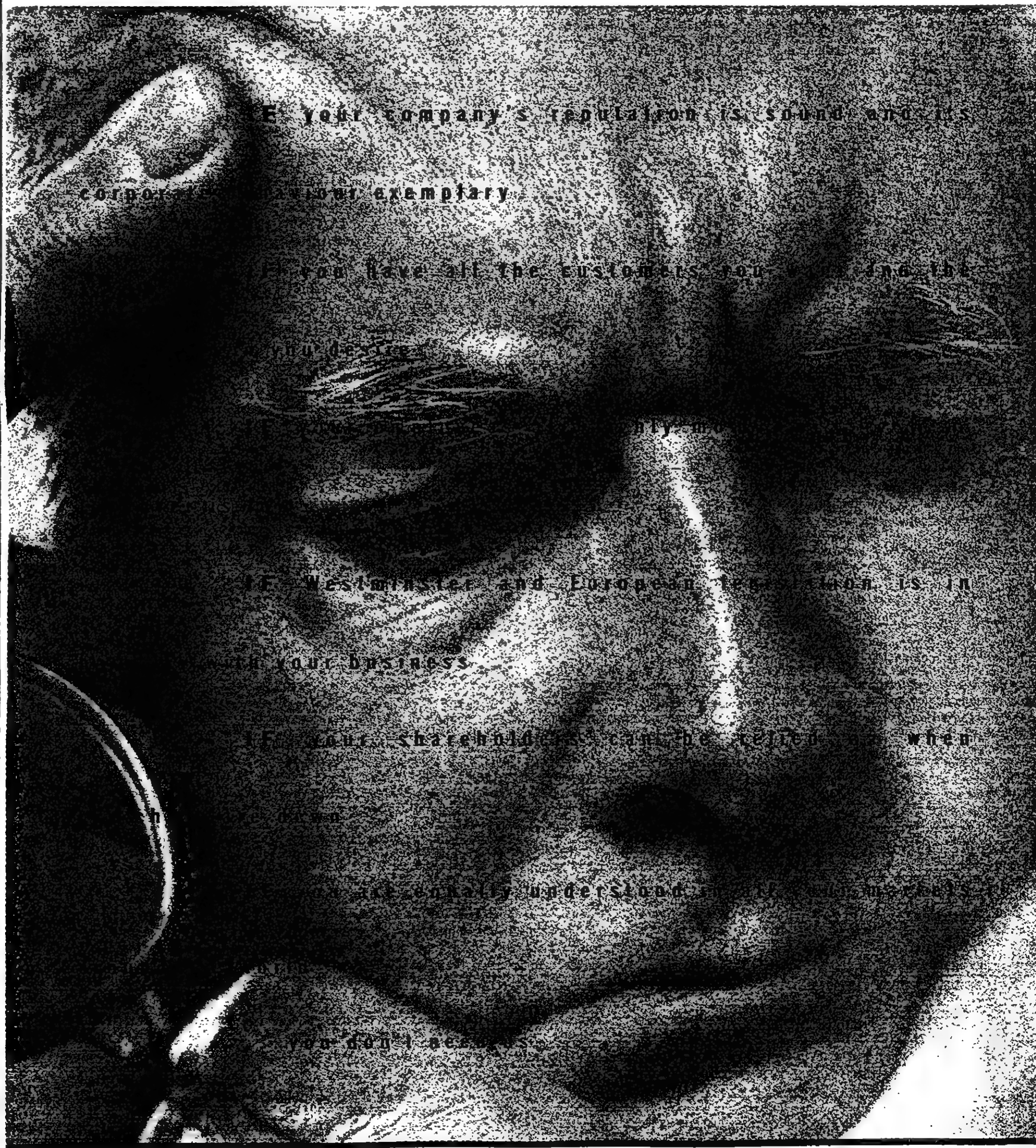
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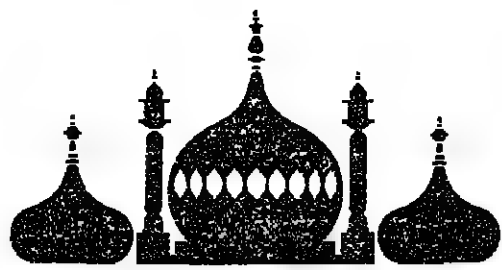
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## Interest costs and rising overheads lead to 14% drop at Austin Reed

By Jane Fuller

AUSTIN REED, the clothing manufacturer and retailer with considerable exposure in London and the south-east, saw pre-tax profits fall by more than 14 per cent to £6.93m for the year to January 31.

Sales advanced by nearly 8 per cent to £84.99m. Trading profit was static at £9.95m (£9.87m), helped by nearly £1m from property transactions, but this was undone by interest costs of £3.02m (£1.78m).

Three quarters of group sales came from retailing, which takes in 43 shops in the UK and the Irish Republic and includes the Cashmere of Scotland shops in the US.

The 10 stores in London and the south-east, however, account for half the business, according to Mr David Anderson, finance director.

While sales of women's wear advanced by 8 per cent, the bigger menswear side only added 4 per cent. Mr Barry Reed, chairman, said this might be a sign that it was "women and children first when money got tighter."

But he also admitted that the menswear ranges might have been too traditional, with an image that was too senior and not exciting enough.

Margins had been eroded by rising overheads and price reductions to move stock.

In the manufacturing division, which includes Chester Barrie hand-tailored clothing and Stephens Brothers shirts, exports rose to £14.1m (£13.5m).



Barry Reed: the menswear ranges might have been too traditional, and not exciting enough

At Robertson of Drumfries, the knitwear concern, 80 people had been made redundant because of excess capacity.

After a property revaluation, gearing fell from 28 per cent to 23 per cent. Borrowings stood at £13m and the aim was to reduce them to £10m.

Mr Reed said the capital spending programme which had hit £7m in 1988 had fallen to £4m last year. This year it is expected to be £1.5m.

Earnings per share fell to 17.3p (18.7p). A recommended final dividend of 5.5p makes a total of 9.5p (9p).

### COMMENT

Austin Reed is donning two coats to protect itself against the harsh UK retailing climate. The first is its assault on borrowings, made easier because its shop refurbishment programme is virtually complete. The second is an attempt to broaden the appeal

of its menswear. Without alienating the 45 to 50-year-old average male customer, the aim is to lure in men as young as 25. But progress must be limited this year by the interest-rate pain inflicted on UK customers of all ages. A pre-tax profit forecast of £6.6m (assuming no help from property) gives a prospective multiple of just under 10, which offers no reason to buck the trend of caution towards retailers.

## Le Corbusier takes cameo role as Geers Gross advances 47%

By Alice Rawsthorn

THERE ARE very few company chairmen who would sprinkle their preliminary statements with quotations from Le Corbusier, the founding father of modernist aesthetics, but Mr Bob Gross is one.

Mr Gross is after all the chairman of Geers Gross, an advertising agency. And agencies, as the City knows to its cost, are given to flights of fancy. Who else but a former creative director would quote Le Corbusier's "God is in the details" to illustrate the mundane matter of his company's financial control?

Whether Le Corbusier would have approved of his cameo role in the chairman's statement of an advertising agency - still best known for the "Graded grains make finer flour" ads for Homebrand flour that began in the 1950s - is anyone's guess.

Yet tighter financial controls, modernist or not, played a part in the 47 per cent increase, from £479,000 to £706,000, in pre-tax profits for 1989 announced by Geers Gross yesterday.

The company is recovering from heavy losses in 1987, when the problems of its US agency plunged it into the red.

The US business has been since sold and Geers Gross has cut costs at its London agency.

Earnings per share increased to 4.3p (3.17p) before extraordinary items. But the combination of a fall to £122,000 (£235,000) in the contribution from extraordinary items and the fact that it started to pay tax again reduced earnings per share after extraordinary items to 5.11p (5.38p). The shares rose by 3p to 28p yesterday.

Geers Gross' profit margins doubled - but only from 1 to 2 per cent, well below the industry average - in 1989. The board decided to hold the dividend at 1p.

The London agency suffered when clients postponed campaigns in the fourth quarter of 1989 and turnover fell to £38.5m (£41.05m). Mr Gross said the postponed campaigns ran in the first quarter of the year and Geers Gross won enough new business last year to boost its billings by about 26 per cent.

As a result, he said - possibly in allusion to the interest in mysticism that coloured Le Corbusier's later life - that the company would continue its "born again drive" for profits in 1990.

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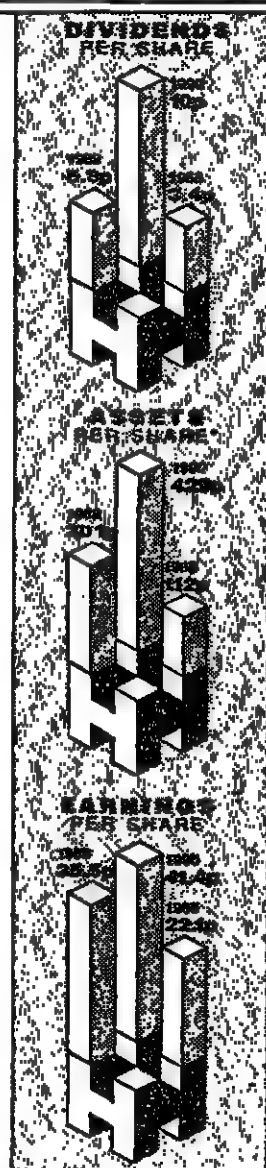
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\*Fully diluted incorporating directors' valuation of trading stock at 31/01/1990 (£11,011,000)



## Aspen ahead 21% to more than £6m

PRE-TAX PROFITS at Aspen Communications increased 21 per cent from £4.96m to £6.02m in the year to end-December.

Mr Henry Meakin, chairman of this USM-quoted company, said it had been a year of very substantial change. Major businesses had been relocated and the group was now well positioned to increase its share of its markets.

Within communications and media, Spax Airline Network had produced a good performance and radio communications enjoyed an excellent year, he said, with Clearstone's first cellular hand-portable being successfully launched.

In specialist printing Hearn Gate, acquired in April 1988, had performed particularly well, while the original Pensord Press business had made

healthy advances in the second half.

The marketing services division also reported an excellent first-time contribution from Aspen Direct Marketing, he said.

Overall turnover was up 55 per cent to £55.72m (£37.78m) and after tax of £2.03m (£1.56m), earnings per share came out at 32.5p (33.3p). By the year-end, gearing was reduced from 47 per cent to 18 per cent. The proposed final dividend of 5.4p makes a total of 7.8p (8.5p).

### Exmoor Dual net assets lower

Net assets per income share at Exmoor Dual Investment Trust were 61.1p at February 28 1990 compared with 63.1p previously, and per ordinary share were 78.4p against 88.5p. Net assets per zero coupon preference share increased from 108.5p to 120.5p.

The trust reported a 10.5 per cent improvement in pre-tax

profits to £580,186 (£524,810) for the half year, achieved on gross revenue ahead from £620,610 to £688,474.

Earnings worked through at 0.87p (0.76p) per ordinary share and 4.53p (4.35p) per income share. The directors are paying a second interim dividend of 2.38p (2p).

### Densitron Intl slips to £1.11m

Profits at Densitron International, an electrical component manufacturer, fell by a further £206,000 in the second half to give £1.11m for 1989.

That compared with £1.63m in the previous year, after turnover showed little progress at £2.2m (£2.25m).

Earnings fell to 3.8p (5.46p) but the final dividend is again 1.56p for an unchanged 2.38p total.

There was an extraordinary loss of £214,000 on the disposal of the unprofitable microwave amplifier operation at Hornsea and allied costs.

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Commercial Union Assurance Company plc is pleased to announce that the resolutions put, respectively, to meetings of the holders of Commercial Union Preference Shares, Commercial Union Ordinary Shares and Commercial Union 1970 Executive Share Scheme Shares, were duly passed by the requisite majorities in accordance with Section 425(2) of the Companies Act 1985.

Accordingly, it is anticipated that the Scheme of Arrangement will be sanctioned by the High Court on 21 May 1990 and will become effective on 1 June 1990.



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The dividend will be paid to holders of CF certificates through the intermediary of the institutions holding their dividend sheets in custody as of close of business on 18 April 1990.

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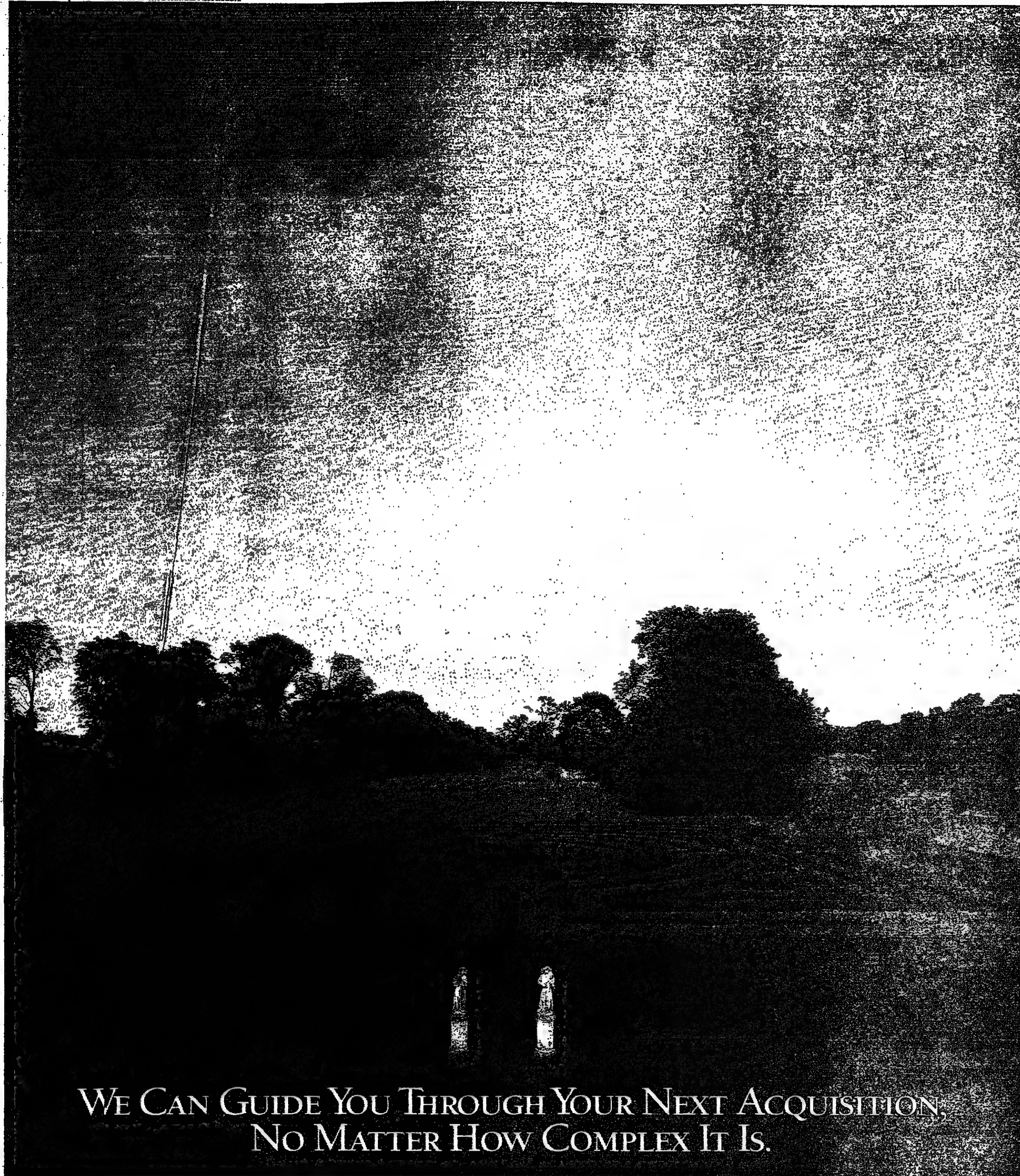
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## UNIT TRUST ASSOCIATION

# 1989 AN EVENTFUL YEAR FOR THE UNIT TRUST INDUSTRY



John Fairbairn  
Chairman, UTA  
(Extracts from the Chairman's  
Statement at the  
thirtieth Annual  
General Meeting of  
the Unit Trust  
Association on  
Wednesday 18 April  
1990)

## A Decade of Remarkable Growth

Last year saw the end of a decade which proved to be far and away the most exciting, dramatic and innovative in the 60 years of the unit trust industry. During that decade there was dramatic growth in assets managed, in management companies, in the number of individual unit trusts and in the number of unitholders. It was during the 1980s that unit trusts moved from being a niche product to becoming a mainstream part of the personal financial planning world. At the beginning of 1980 the industry managed assets of about \$4 billion. At the end of 1989 this had risen to more than \$58 billion. A remarkable growth by any standard.

## Competition Ahead

It should be remembered that we face very powerful competition from other member states of the Community. We must ensure that we are not obliged to compete with them at a disadvantage owing to unequal tax treatment or unrealistic regulation and proposals from Brussels will continue to occupy our Committees in the immediate future. In particular, we shall continue to press for revision of the Capital Adequacy Directive which, in its present form, impacts unfairly on the majority of financial advisers from whom a high proportion of our business comes.

## Good Performance

Discussions in the media and elsewhere about sales figures, which are perceived to be an indication of the industry's health, tend to overshadow the main purpose of unit trust management: that is, to look after the interests of existing unitholders. The Association regularly produces statistics showing that we have succeeded in this task. Superior returns have been achieved in the medium to long-term from unit trusts compared with those from cash deposits. I believe we shall still be able to quote such favourable comparisons in the future.

## The Future

There are undoubtedly exciting opportunities ahead. Far more British people than ever before now own houses and other assets. With increasing prosperity and the impact of inheritance, this means that a far larger proportion of the population has significant sums to invest. It is, therefore, disappointing that we still have only less than 2 million people in this country investing in unit trusts. This caution is not confined to the UK. The number of people owning shares either directly or through collective investments in the major countries throughout the world is relatively small. The need to convince people that taking short-term risks should produce better long-term rewards is a major and urgent task for the Association.

Free literature on unit trusts is available on sending a request to: Unit Trust Association, 65 Kingway, London WC2B 6TD.

## UK COMPANY NEWS

## Slimmer Rea Brothers doubles to £1.2m

By David Lascelles, Banking Editor

REA BROTHERS Group, the City of London financial services company which is struggling to rebuild itself after a period of crisis, yesterday announced a doubling in profits.

In 1989, Rea made pre-tax profits on ordinary activities of £1.2m, up from £600,000 in the previous year.

After tax and several exceptional and extraordinary items connected with the reshaping of the group, the profit was £1.8m, up from £1m.

Sir John Hill, chairman, said that the phase of senior management changes "is complete and we look forward to an improved performance over the forthcoming period."

Rea's problems began four years ago with an ill-judged acquisition in the Netherlands which brought large losses and forced a recapitalisation.

Then came a period of uncertainty following the death of Sir Walter Salomon, its principal owner and president. However, Sir Walter's heirs decided to retain the company and investment and support the development of the group.

The new management decided to sell off peripheral activities such as consumer



Roger Parsons: "we have now cleared the decks"

finance and travel services and concentrate on banking and investment services for private clients, professional partnerships and small and medium-sized companies.

The group now has four core businesses: banking, investment management, trust and company administration and corporate finance based in London, Guernsey and the Isle of Man.

Mr Roger Parsons, the man-

aging director who arrived in 1988, said: "We have now cleared the decks, and are laying the foundations for a successful business."

The bulk of last year's profit came from banking services where the group has a strong private base of personal deposits, particularly in Guernsey. The intention now is to expand the fee-earning side of the business.

Fund management is still operating at a loss because of high overheads. Mr Parsons said the division had set itself the target of trebling funds under management from their present level of "the low nine figures", though it was unlikely to return to profit this year.

Mr Parsons said the group's aim is to achieve a strong improvement in return on capital, which amounted to about 5 per cent last year.

He believed the possibilities were good given the impressive returns which the company's Guernsey operation was able to achieve.

Earnings per share worked through at 2.5p (1.59p). A proposed final dividend of 0.25p makes an unchanged total of 0.5p for the year.

## Trans World buoyed by Piccadilly purchase

By John Thornhill

TRANS WORLD Communications, the radio and leisure company formerly known as Miss World Group, increased pre-tax profits by 80 per cent to £4.56m in 1989, as it benefited from the acquisition of Piccadilly Radio.

The group's radio interests provided the main contribution to profits with £4.71m (£1.63m).

The contribution from Piccadilly Radio, finally acquired in April 1989 after a bitter £35m takeover battle, was not broken out.

But Mr Owen Oyston, chief executive, said the station had proved to be an excellent investment and had considerable potential for further growth. New management and reduced overheads had significantly increased the station's profitability although it had experienced severe problems in its advertising sales house, he said.

Trans World was twice investigated by the Takeover Panel concerning allegations of breaches of its rules during the bid for Piccadilly Radio. But on both occasions the Panel said it had found no evidence of any such breach.

The group also runs three other radio stations: Red Rose in Preston, Radio Aire in Leeds, and Red Dragon in Cardiff. Total listening hours across the group increased by almost 20 per cent making it the second largest radio group in the UK and it claims to have about 14 per cent of the total adult audience.

The Miss World pageant - no longer screened in the UK - was held abroad for the first time in Hong Kong and was televised in 30 countries.

The contest and related promotions, however, contributed far less to pre-tax profits with £245,000 (£785,000).

After a 10 year absence, the contest will be shown in the US this year. "America is one of the best beauty queen markets in the world," Mr Oyston said.

The commercial radio sector was unsettled earlier this week when Yorkshire Radio Network issued a profits warning due to falling advertising revenues. Trans World said it too remained cautious about the outlook for advertising given the economic climate.

But Mr Oyston said the group's prospects continued to be excellent and that it expected its advertising revenue to grow as its radio stations began transmitting on two frequencies. He added that Trans World intended to compete for a national radio franchise from 1991.

Group sales advanced to £12.72m (£8.41m). A recommended final dividend of 3p brings the total to 12p (10p). Earnings per share expanded to 35p (£7.5p).

## Nav slips at English National

English National Investment yesterday announced net asset values at March 31 of 319.2p per Preferred share and 244.3p per Ordinary share.

The figures compared with respective values of 327.9p and 252.9p a year earlier.

Net revenue for the year amounted to £514,006 (£296,127). Earnings per Preferred share emerged at 16.34p (13.18p) and the dividend is raised to 15.5p (13p) via a proposed final of 11.05p.

The earnings figure for the Preferred shares worked through at 11.44p (£8.29p) and a final dividend of 8.6p is recommended for a 10.9p (£8.1p) total.

## Second-half lifts T&S to £6.65m

BENEFITING from second half trading ahead of budget and from gross margins improved in all product areas, T&S Stores turned in sales of £197.1m and pre-tax profits of £6.65m for the whole of 1989.

Christmas proved to be extremely busy, reported Mr Kevin Threlfall, chairman.

The year included a full contribution from the Superdiscs business and six months from the Dillons/Preddy group, acquired in May for £24m and funded by a rights issue. Stores

sold accounted for 1.4m turnover and £688,000 profit.

For 1989, the group as then constituted produced turnover of £129.6m and profits of £3.04m.

Mr Threlfall said the current year had started well, with sales and gross margin ahead of plan. The first half would benefit from a windfall profit on increased tobacco duty, the overall impact of the Budget would not affect figures so significantly as in the past.

The group currently traded

from 550 stores, comprising 500 traditional newsagents, 50 convenience stores and 200 Superdiscs high street operations.

The 11 stores acquired last month in the north east would be converted into Superdiscs and form the basis of a major expansion in that area. The first stage of integrating the Dillons/Preddy group was complete.

Earnings in 1989 worked through at 10.5p (9.89p) and the final dividend is the promised 2.5p on increased capital to make a 4p total (£2.25p).

## NEWS DIGEST

## Dinkie Heel boosted by acquisitions

DINKIE HEEL, supplier of components to the footwear industry, did not manage to hold on to the advance shown at the interim stage when operating profits were more than doubled.

Nonetheless, it turned in a record set of results for 1989 with an advance to £418,000 from £288,000 at the pre-tax level.

Benefiting from a full year's contribution from Odell Components, Phillips Rubber and Enterprise Group, operating profits finally emerged at £560,000 (£338,000) from turnover of £7.95m (£3.55m).

After tax of £145,000 (£102,000) earnings came out at 2.33p on the capital increased by the February 1989 rights (1.94p). Total dividend jumps from 0.57p to 0.95p with a final of 0.6p.

## Borland back in profit for year

Borland International, the USM-quoted designer and marketer of application software for microcomputers, achieved pre-tax profits of £15.52m (£9.5m) for the year to March 31, compared with losses last time of £2.77m.

Profits for the California-based company rose from £1.81m to £5.28m in the final quarter.

Net revenue for the year increased to \$113.29m (\$90.56m), with \$34.84m (\$25.92m) credited in the last quarter. Operating profits worked through at \$14.99m (\$1.93m losses), and the pre-tax result was struck after interest received of \$528,000 (\$845,000 charged).

Tax of \$3.18m (credit \$500,000) left earnings at 99.9 cents (19.4 cents losses).

There is again no dividend proposed.

## Pittencreeff gushes to £708,000

Pre-tax profits of Pittencreeff, oil and gas producer, rose almost twofold in 1989 from nearly \$81,000 to \$708,000 from turnover of £2.13m against £346,000.

Reflected in the sharp advance was the partial benefit from the Seahawk and Geovest acquisitions in July 1989.

Mr Terry Heneghan, chairman, pointed out that the com-

pany had built up its assets and cash flow base over the past two years by acquiring producing oil and gas reserves in the US at relatively cheap prices and subsequently reducing administrative costs.

Mr Heneghan said that underpinned by the past year's performance, the company had commenced the process of seeking a quotation for its ordinary shares in 1990. Currently the shares are dealt in on a matched bargain basis.

Earnings were 11.38p (2.38p) or adjusted 9.24p after tax of £20,218 (£3,334).

## Hill Samuel makes purchase in US

Hill Samuel Investment Management Group, part of the Trustee Savings Bank group, is to buy Atlanta Capital Management Company, a US institutional investment manager, for an undisclosed sum.

The acquisition is the second in the US by Hill Samuel and brings funds under management and advice there to over \$10bn. Atlanta has \$1.6bn under management.

## Sole auditor for United Biscuits

When United Biscuits (Holdings) was created in 1988, its joint auditors were Deloitte Plender Griffiths & Company and Lindsay Jamieson and Baidam.

Through four decades of accounting mergers, the relationship survived. The biscuits and snacks group's 1989 accounts, published yesterday, lists the original firms' ultimate successors, Coopers & Lybrand Deloitte and Ernst & Young, as joint auditors.

From this year, however, Ernst & Young will be sole auditor. UB said the change would simplify matters and reduce costs. Coopers will be retained for taxation advice and consultancy services.

UB's accounts also show that Sir Hector Laing's salary rose from £185,000 to £212,000 in his final full year as chairman.

He retires on May 10 after 17 years as chairman and 45 years with the group. The highest paid director, believed to be Mr Robert Clark, chief executive and soon to the chairman, received £312,000 (£226,000) in 1989.

## Prestwick halved to £527,000

Following the warning given in December, Prestwick Holdings

## BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering the accounts and dividends are not available as to whether the dividends are interim or final and the subdivisions shown below are based mainly on last year's timescales.

## FUTURE DATES

Company	Date
Adair Group	Apr. 24
Adair Group	Apr. 25
Adair Group	Apr. 26
Adair Group	Apr. 27
Adair Group	Apr. 28
Adair Group	Apr. 29
Adair Group	Apr. 30
Adair Group	May 1
Adair Group	May 2
Adair Group	May 3
Adair Group	May 4
Adair Group	May 5
Adair Group	May 6
Adair Group	May 7
Adair Group	May 8
Adair Group	May 9
Adair Group	May 10
Adair Group	May 11
Adair Group	May 12
Adair Group	May 13
Adair Group	May 14
Adair Group	May 15
Adair Group	May 16
Adair Group	May 17
Adair Group	May 18
Adair Group	May 19
Adair Group	May 20
Adair Group	May 21
Adair Group	May 22
Adair Group	May 23
Adair Group	May 24
Adair Group	May 25
Adair Group	May 26
Adair Group	May 27
Adair Group	May 28
Adair Group	May 29
Adair Group	May 30
Adair Group	May 31

## DENSITRON INTERNATIONAL PLC Summary of Group Results for the year ended 31 December 1989

	1989 £'000s	1988 £'000s
Turnover	23,004	22,979
Profit on ordinary activities before taxation	1,112	1,628
Profit on ordinary activities after taxation	589	890
Minority interests	(4)	-
Extraordinary items	584	890
	(214)	-
Profit for the Financial Year	370	890
Dividends (interim paid and final proposed)	381	381
Earnings per share	8.60p	5.49p

## Synopsis

- Dividend maintained
- Profits lower in difficult transition year
- European sales increase by 18%
- USA and UK displays business increases profits
- Japan grows large new business in Asia
- Taiwan reports increased sales and profits
- Main Taiwanese factory returns to profit; unprofitable division is sold
- Solidified business in USA remains at lower volume
- Diversified France and Diversified Taiwan found incurring initial costs during 1989
- Major new product lines introduced

The above is an abridged version of the Company's accounts which for the year ended 31 December 1989 have been audited and received an unqualified opinion but not yet filed with the Registrar of Companies.

Densitron International PLC, Unit 4, Airport Trading Estate, Bighill Hill, Wetherham, Kent TN16 3EW

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For the three month period 17th April, 1990 to 17th July, 1990.

In accordance with the provisions of the Notes, notice is hereby given that the rate of interest has been fixed at 15 1/8 per cent. per annum and that the interest payable on the relevant interest payment date, 17th July, 1990, against Coupon No. 23 will be £1,916.61 from Notes of £30,000 nominal and £1,916.66 from Notes of £3,000 nominal.

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## TECHNOLOGY

In the first of a series on Japanese manufacturing successes, Della Bradshaw explains how a Sony innovation was developed to beat the competition

## The camcorder cut down to size

In 1986 Japanese electronics manufacturer Sony realised that if it could make a miniature video camera then, it could capture the lion's share of a potentially huge market. By the summer of 1989 the TR-55 camcorder was on the retailers' shelves.

At its launch the TR-55 camcorder — a combination of video camera and recorder — marked a significant size breakthrough. Just 176 mm (less than seven inches) in length, its predecessors looked like dinosaurs in comparison. But, says Akira Shimizu, manager of product planning at Sony's personal video group, once the camcorder was on sale the company had only a year's grace before its rivals could produce an equally compact, if not smaller, product. "Making it for the first time is the difficult thing," says Shimizu. "Now we've proven that it can be done, following is easy."

This predicament is common throughout the Japanese electronics market. Sharp faced the same barrage of imitations when it introduced Japan's first electronic organiser, as did Toshiba when it introduced its Dyna Book book-sized portable PC (sold internationally as the T1000).

Dyna Book, launched in Japan in July 1988, took two years to develop. But by November NEC already had a rival product on the market. Sakae Yanagawa, Executive for Technology at Toshiba's Omiya portable computer factory, says the lead times are getting shorter all the time.

"The time between you launching a product and your competitor's launch is getting shorter because very similar basic research and development is being done all the time in all the big companies," says Yanagawa.

Looking back on the process that produced the Sony TR-55, Yoshiharu Matsumoto, general manager of one of Sony's camcorder product divisions, says that it was the ability to call on the diverse research and development capabilities of the different Sony departments that made the project possible.

The rush to produce the TR-55 resulted from two pieces of market research done by Sony in 1986. The first revealed that 40 per cent of Japanese families with children under the age of five already had camcorders, so the market was reaching saturation point. The second showed that the growing number of Japanese tourists wanted a camcorder which was small and lightweight.

At the same time, an internal Sony competition to find a way of promoting its 8mm video technology — which uses 8mm wide tape in smaller cassettes than the more common VHS tapes — came up with two promising ideas. The first, the Video Walkman, a miniature television and video recorder; second, the hand-held camera and video recorder.

To determine the viability of the camcorder, the company set up a special project team of six engineers. Their job was to trawl the marketplace to check if any new components were coming on to the market and what parts Sony would need to produce in-house.

Eighteen months later the project team demonstrated a prototype and the TR-55 got under way. Five mechanical engineers joined the original research team drawing on experience from all of Sony's divisions.

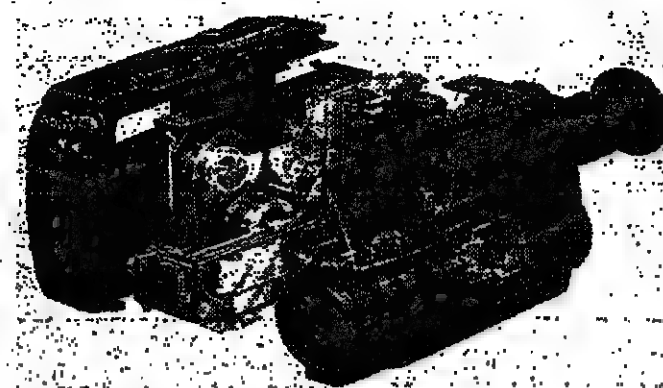
Matsumoto believes it was the successful combination of six or seven important technologies which resulted in the TR-55.

● The first was the mechanical deck, which holds the 8mm video cassette. To produce a deck so much smaller than existing models the Sony engineers had to increase the number of minuscule mechanical components.

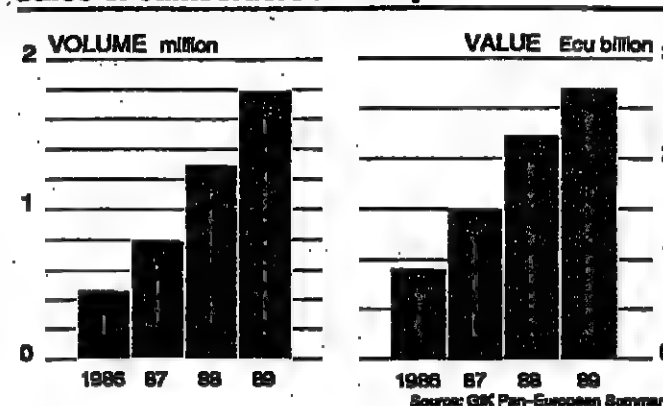
● The second was the lens and the charged coupled device (CCD) — the photo-electric circuitry which, when the light falls on it, transfers the picture on to the film.

The smaller the lens the smaller the amount of light it lets in. So in the TR-55, with a lens just 37mm inches across, almost one-third smaller than ordinary lenses, Sony had to use an extra sensitive CCD to compensate for this lack of light.

The CCD had already been used as a secondary chip in larger camcorders, for use in gloomy or badly lit locations, but the Sony engineers recog-



Sales of camcorders in Europe



aised that they could exploit this as a way of reducing the lens size. As a result, instead of the normal f1.4 or f1.6 aperture on camera lens, the TR-55 has a f2.0 lens.

● The third was to cram as many chips on to the printed circuit boards as possible, by introducing a sandwich of three boards, with a total depth of 0.6mm.

With traditional circuit boards the chips and other components are fixed on the board and the "wires" connecting the components are printed on the surface between them. With the Sony development the chips are placed much closer together and the wires

were their way between the three boards, forming underground connections as well as surface ones.

Sony had already used the technique with printed circuit boards for its computer products, but they were digital. More difficult to design was the analogue version because of interference between the layers of boards.

With the more traditional approach the proportion of the board occupied by components is about 50 per cent; with this sandwich approach Sony increased it to 75 per cent.

● The fourth innovation was straight miniaturisation. The original project team spotted

that tiny components were beginning to appear on the market. Many could be used in the project and others were developed by Sony in-house. The resistors in the TR-55, for example, measure a minuscule 1.6mm by 0.6mm, topping more than a third off the size of more traditional components.

● Sony had to develop custom chips to carry out specific functions in the camera.

● To deal with such tiny components the company introduced new ways of mounting the devices — mounting them by hand was too clumsy. In the TR-55 almost 100 per cent of the components are machine mounted on the boards. To achieve that, Sony contracted electronic production companies to tailor machines for the camera project. For the special integrated circuits, produced by Sony's own chip division, machines were developed at Sony.

● The last development was three-dimensional computer aided design software, bought in by Sony to help model the camera and develop the smallest case. The software enabled the engineers to draw the camera on the screen in three dimensions and move the parts together to ensure that everything fitted inside the case.

A particular problem caused by the components being crammed together so closely in the case was over-heating. The software identified the affected areas by illuminating them in red, enabling the engineers to re-juggle the components within the case.

While perfecting the design for the rigid case Sony fed the data straight from the computer into a mould-making machine. This produced different models which Sony could play with until it came up with the optimum design. Now the computer data is fed directly to the companies making the case.

In spite of the vulture-like copying by rival manufacturers — Yanagawa calls it the Japanese "bad habit" — getting into the market first pays off. In its first nine months Sony sold 850,000 TR-55s, more than all the camcorders sold in West Germany, France and the UK throughout 1989.

But rivals are already creeping into the market. Fuji and Kyocera are selling almost identical models in the Japanese market, and Hitachi has a model which is claims is just two thirds of the thickness of the Sony TR-55.

The series will continue next Thursday.

### Robot cart runs factory errands

A ROBOTIC cart that can trundle round a warehouse or factory and pick up the components needed to make eight different machines has been developed in West Germany.

The clever cart, developed by Datateam Datentechnik, of Nuremberg, is told what components are required for each product — and where to find them — by an infra-red beam, which carries information from the company's manufacturing computer.

The cart, which has a central pole with brushes on the top to draw electric power from an overhead track — similar to a trolley on a railway — then sets off from the parking bay to pick up the components. It does this using a robotic arm equipped with a video system to guide it to the components, so that they can be placed higgledy-piggledy on the shelves.

The cart has eight different products and built-in weighing scales to check that the correct part and quantity has been selected. Datateam is represented in the UK by consultants Total Logistics.

### Executive fun and games

PLAYING computer games may seem more like work than play. But for managers on residential courses at the Ashridge Management College, in Hertfordshire, it is part of the executive workload.

They are being trained using a role-playing computer game called "Smash", which can be played by three to five teams. Each team is given its own "company" to run.

The software, written by the FI Group, of Hemel Hempstead, shows the company history, sales forecasts, latest set of results, and so on, displayed on the screen of an IBM personal computer. From the information, the students have to manage the company and compete with rivals in the marketplace.

### The newspaper's talking point

A TALKING newspaper intended to give blind people the same daily dose of information as their seeing peers has been developed by the Royal National Institute for

the Blind (RNIB) in London.

The project, now in its trial phases, broadcasts The Guardian newspaper using the spare capacity on the television airwaves alongside the teletext transmissions. The text is picked up by personal computers equipped with a decoder card and the data is stored on the hard disk.

When the newspaper has been transmitted, the user can call up a series of menus on the screen, such as the date of the paper or the type of topic — home news, sport or so on. A speech synthesiser reads out all the options. Once the required article is displayed, it reads that as well. The system can be operated by using just six keys.

### No vacancy at the inn

THE Indian hotel chain, East India Hotels (Oberoi) Group, is enlisting the talents of an expert computer system to help it fill the rooms.

The computer system, which uses hardware and an artificial intelligence language from Texas Instruments, of Dallas, plus applications software from the Indian company DCM Data Products, copies the way a front office manager would do his job.

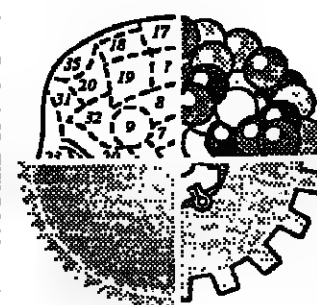
If one hotel is particularly empty, say, the front office manager might decide to give a discount to travel agents. The system was set up by interviewing the front office manager of the Oberoi New Delhi Hotel, who had more than nine years' experience in the hotel business.

Through the interviews, rules were developed which encapsulated his expertise on forecasting and booking to optimise the room occupancy.

### Giving patients the cold shoulder

A TREATMENT for rheumatism, which sounds more like torture than cure, is being introduced in West Germany. The technique involves subjecting patients to temperatures of minus 180 deg C, about twice as cold as the coldest temperature found naturally on earth.

Doctors at the Immanuel Hospital in West Berlin will use a cryotherapy chamber fed by dry air, cooled by a Linde machine, from Subzero, of Aldershot. It produces liquid air, which is stored in a vacuum insulated container



### WORTH WATCHING

by Della Bradshaw

and then used to cool the fresh air stream entering the chamber.

Patients spend only a few minutes in the chamber, three times a day, over a period of several months. The treatment, supporters claim, helps the body repair itself by relieving the rheumatic pain in the affected joints, so improving mobility. This helps restore damaged tissues.

### Glowing reports about cabbages

CABBAGES which glow in the dark will soon find their way into a vegetable patch in Alabama, following the decision by the US Agriculture Department to plant greens impregnated with genetically engineered bacteria in open fields.

The botany and microbiology department of the University of Auburn, in Alabama, has genetically engineered a bacterium known as xanthomonas — which causes black rot in cabbage and broccoli. Scientists have impregnated the bacteria with the DNA of a marine micro-organism which is luminescent, so making the bacteria glow like a glow worm.

However, ray ratsoulle is not on the menu. The aim of the project is to enable scientists to monitor the spread of black rot and to demonstrate that this sort of project is safe — not to provide the restaurants of Alabama with a new expensive delicacy.

Contacts: Datateam Datentechnik, West Germany, 911 3000 595. Total Logistics, UK, 0734 772389. FI Group, UK, 0442 333328. Ashridge Management College, UK, 044234 5481. RNIB, UK, 01 366 1238. Texas Instruments, UK, 0442 874008. Subzero, UK, 0282 544111. University of Auburn, US, 205 844 1002.

## COMPANY ANNOUNCEMENTS

### The Shareholders of SANDVIK AKTIEBOLAG

are hereby invited to attend the Company's Annual General Meeting, which will be held at Folkets Hus in Sandviken, Sweden, at 2 p.m. on Thursday 10 May 1990.

#### NOTIFICATION

Shareholders wishing to attend the Meeting must notify the Board thereof either by letter addressed to Sandvik AB, Legal Affairs, S-811 81 Sandviken, or by telephone, +46 (0)26-26 10 81. Such notification must reach Sandvik AB not later than 3 p.m. on Monday 7 May 1990. In order to qualify for attendance, Shareholders must have been entered in the Share Register kept by the Securities Register Centre (Värdepapperscentralen VPC AB) not later than Monday 30 April 1990. A Shareholder who has had his shares registered as held in trust ("förvaltare") must have them temporarily re-registered with the VPC in his own name not later than 30 April 1990 to establish his right to attend the Meeting.

#### AGENDA

Items of business which, under the requirements of the Companies Act and the Articles of Association, must be transacted at the Annual General Meeting, among them being the presentation of the Annual Report and accounts and the Audit Report, the motions to adopt the Income Statement and the Balance Sheet and the Consolidated Income Statement and Balance Sheet, to approve the conduct of the Company's affairs by the

Directors and the President and the appropriation of the Company's profit according to the adopted Balance Sheet, the fixing of the fees for the Directors and Auditors, and the election of Directors and Auditors.

#### DIVIDEND

The Meeting's resolution on dividend shall fix the day on which the Share Register kept by the Securities Register Centre and the List of Assignees, etc., that is maintained in conjunction therewith shall be reconciled. The Board proposes that this "record day" shall be Tuesday 15 May 1990. If the Meeting adopts this proposal, it is envisaged that dividends will be remitted through the agency of the Securities Register Centre on Tuesday 22 May 1990 to those who on the record day were entered in the Share Register or in the aforesaid List of Assignees.

Sandviken, April 1990  
The Board of Directors



## PUBLIC NOTICES



### MMC INVESTIGATION INTO THE SUPPLY OF INSTANT COFFEE

The Monopolies and Mergers Commission is investigating whether there is a monopoly in the supply of instant coffee, and, if so, whether any aspect of the supply of coffee, including the level of retail prices, is against the public interest.

Any person wishing to give information or views on the matter should write as soon as possible, but no later than 18th May 1990 to: The Reference Secretary (Coffee Inquiry), Monopolies and Mergers Commission, New Court, 48 Carey Street, London WC2A 2JT.

## LEGAL NOTICES

No. 001368 of 1990  
IN THE HIGH COURT OF JUSTICE  
CHANCERY DIVISION  
IN THE MATTER OF  
FERROVET GROUP PUBLIC  
LIMITED COMPANY  
(formerly Clogau Gold Mines  
Public Limited Company)  
and  
IN THE MATTER OF  
THE COMPANIES ACT 1985

NOTICE IS HEREBY GIVEN that the Order of the High Court of Justice (Chancery Division) dated 19th March 1990 confirming the reduction of (i) the capital of the above-named Company from £14,515,225 to £2,750,000 and (ii) the share premium account of the said Company by £2,554,775, and the Minutes approved by the Court showing with respect to the capital of the Company as altered the several particulars required by the above-named Act, were registered by the Registrar of Companies on 29th March 1990.

Dated this 16th day of April 1990

Messrs. Fenny & Williams of  
Minority House, 24 Moorfields  
London EC3N 1BJ

Solicitors for the above-named Company

IN THE MATTER OF TEAM CONSULTANTS  
AND PROJECT MANAGERS LIMITED AND IN  
THE MATTER OF THE CYPRUS COMPANIES  
LAW CAP 115

Notice is hereby given that the creditors of the above-named company which is being voluntarily wound up are required on or before the 21st day of May 1990 to send in their full names, their addresses and descriptions, full particulars of their debts or claims and the names and addresses of their solicitors (if any) to the undersigned Mr. Antony Hall Rouse QC of Julia House, 3 Thistle Street, Darnley Street, P.O. Box 1052, required by notice in writing from the said liquidator, to come in and prove their debts or claims at such time and place as shall be specified in such notice, or in default thereof they will be excluded from the benefit of any distribution made before such debts are proved.

Dated this 16th day of April 1990

A Hall Rouse QC  
Liquidator

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# MAY

16

20

25

28

31

2

31

3

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Telex: 0911 881 3583

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Fax: (44) 20 7637 1136

Spain U.S. Chamber of Commerce in Florida

Southern International Plaza

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Telex: 441222

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## COMMODITIES AND AGRICULTURE

## Oil prices fall steeply as Jeddah talks disappoint

By Steven Butler

OIL PRICES fell steeply again yesterday as markets registered disappointment at the outcome of crisis talks in Jeddah, Saudi Arabia, between oil ministers of Saudi Arabia, Kuwait, and the United Arab Emirates.

The meeting was called hastily following last week's plunge in oil prices and was reported to have produced informal pledges from Kuwait and the UAE for unspecified cuts in production. Oil traders, however, were unconvinced that any action would quickly reduce the surplus of ready supply that are weighing on the markets.

North Sea Brent oil for June delivery fell by 45 cents in European trading to close at \$18.30 a barrel. In the New York Mercantile Exchange, June futures for West Texas Intermediate crude were off 64 cents at \$17.75 a barrel in midday trading, well below the psychologically important \$18 benchmark.

Prompt cargoes were traded at a steep discount. May futures in New York fell 80 cents to \$16.64 a barrel, while dated cargoes of Brent crude were approaching \$15. These prices were not far above the lowest prices registered last week.

Excess production by Saudi Arabia, Kuwait, and the UAE accounts for the great majority of oil output over the produc-

tion ceiling set by the Organisation of Petroleum Exporting Countries. The ceiling was set at 22.1m barrels a day in November, while Opec is producing about 22m b/d.

A statement issued after the meeting through the official Saudi Press Agency said that Opec overproduction had caused the drop in oil prices. However, the ministers also appeared to blame high production by non-Opec producers.

"Producers outside Opec should also not increase production to benefit from the increase in prices when seasonal demand is high," the statement said.

It was not clear to which countries the statement referred. Co-operation between Opec and non-Opec producers became a dead letter last year when oil prices began to strengthen.

The basket of Opec crude was reported to have fallen last week to \$15.20 a barrel, compared to the Opec "minimum" reference price of \$18.00 a barrel.

Prices at these levels cause considerable financial difficulty to a number of Opec members, some of which have expressed willingness to attend an emergency ministerial conference of all 13 members.

There was pessimism in oil markets yesterday that any significant action would be

taken to curb oil supplies in advance of the scheduled May 25 meeting of Opec members.

According to Reuters, an Iranian newspaper yesterday blamed Saudi Arabia and other clients of world imperialism in the Gulf for the sharp fall of oil prices. It said Saudi Arabia was the "main culprit". These sorts of comments could indicate a stormy meeting in May.

The American Petroleum Institute late Tuesday night reported an increase in US crude stocks last week of less than 1m barrels. Although the increase was much smaller than last week's 8m barrel stock build, it shows that the surplus of US supply is not declining.

It remains over 51m barrels higher than a year ago. Refined product stocks, however, did post declines while refinery utilisation rose by over three percentage points.

The failure of crude prices to decline even further reflects continuing confidence in the markets that current price weakness is a temporary difficulty which will last for several months at most. This is borne out by steeply higher prices for forward delivery.

For example, July futures were trading in New York nearly \$2 a barrel higher than May futures, while October futures were yet another dollar higher.

## Spanish fishermen scuppered by Namibia

Peter Bruce explains the difficulties facing a traditional Galician maritime industry

A LOT of people in the Galician fishing port of Vigo have been fishing on their nerves for the past three weeks. The hillside city normally has 5,000 of its sons off on the high seas at any one time of the year manning Spain's deep sea fishing fleet.

Now, most of that fleet is either stuck in port or on its way home following a decision by the newly independent Government of Namibia to ban foreign ships fishing in its waters from April 1 until a detailed survey of its remaining fish population has been carried out.

For the Spanish, it has been a bitter blow. "It is the most important fishing ground we have," says Mr. Reinaldo Iglesias, co-director of Vigo's main trawler co-operative. Worse still, he admits, "there

is no doubt that the arrival of so many ships together will cause the price of fish to fall."

About 50,000 townsfolk make their living indirectly off the fleet, mainly in processing plants. Pescanova, Europe's biggest fishing company, is based in Vigo. In theory, about 115 of Spain's 200-strong deep sea fleet had the right to fish off Namibia. Another 55 or so fish close to the Falkland Islands in the south-west Atlantic.

Following Namibian expulsion orders, about 30 big trawlers are expected back in Vigo in the next six to 10 days. The 28 already in port now have nowhere to go. About 10 were able to divert from Namibia to the Falkland Islands. 14 have been chartered by a Namibian registered company. It could not be confirmed

yesterday whether the charter was a Pescanova subsidiary.

"There are no alternatives to Namibia," says Mr. Iglesias. Like most fishermen, he is angry that the European Commission, which he says knew the Namibian authorities were going to extend their territorial waters to 200 miles and impose the ban, had not tried earlier to negotiate a new fishing agreement.

"This should have been spotted a long time ago," he said. Promising worried fishermen he would try to do something, the Spanish Foreign Minister tried to raise the issue during the recent independence celebrations in Windhoek, but it is not certain that anyone was listening.

Spaniards each eat about 30 kilos of fish a year, one of the

highest consumption figures in the world. Most of that fish is hake, or *merluza*, in which Namibia's waters abound.

Researchers say the Spaniards take more than half the hake caught off Namibia, but demand in Spain is nevertheless so great that hake imports — chiefly from Chile and Argentina — nearly tripled to 65,000 tonnes between 1986 and 1988.

Not surprisingly, the Namibians have become concerned about over-fishing by international fleets in their waters. The Soviets harvest a great deal of mackerel, the South Africans take sardine and new research has uncovered a sharp deterioration in the hake population, due largely to Spanish fishing.

Although hake can live up to 10 years, they are normally fer-

tile between two and three years old. In 1977, more than 60 per cent of the hake caught off Namibia was past breeding but by 1988 about 80 per cent of the catch was under three years old.

This has meant that not only are fertile fish being caught but that, because they are smaller, more have to be caught to make up profitable tonnages. The EC Commission is preparing to talk to the Namibians about a new treaty which would allow the Spaniards back into the South Atlantic in force.

However, conscious that it has precious few natural resources and that the profits from most of them have not, until now, been invested back in the country, Windhoek will probably not be in a hurry to sign anything.

## Cuba 'rectifies errors' to help citrus sales

Trevor Petch looks at efforts to boost exports after the changes in Eastern Europe

CUBA is confident that despite the disruption to its traditional citrus export markets in Eastern Europe and the USSR, it will be able to continue relying on steady demand from those countries while developing new trade links with market economies elsewhere.

According to Soviet sources, Cuba was last year unable to supply its agreed quota, representing about half of Cuba's citrus exports. It would appear that state purchases of citrus fruit in 1989 were 15 per cent down on 1988 at 823,000 tonnes.

At the end of last year, the non-arrival of Soviet and Polish vessels scheduled to make shipments resulted in the diversion of considerable tonnages to the domestic market.

Nevertheless, according to Mr. Amado Alvarez Valdes, Deputy Director General of Cubatras, the enterprise responsible for export trading, the fresh and processed citrus component of the Cuban-Soviet trade agreement for the current year has been fixed at higher levels.

In Eastern Europe, oranges — like bananas — have acquired the status of symbols of improved living standards. Given the low per capita consumption, Mr. Alvarez considers that they will also provide

a continued market for Cuban exports.

The policy of "rectification of errors" under way in Cuba — which emphasises party discipline and eschews market solutions — is interpreted by Cubatras as implying attention to fruit quality and increasing sophistication in developing new markets. The organisation is trying to develop new areas, such as counter-trade and joint ventures as well as better market research and advertising.

In the European Community, Cuban oranges have a small but secure market niche in the Netherlands. This is because of the community of Surinamese descent in Holland, who prefer the slightly green-skinned varieties common in the Caribbean to the brightly dyed produce found in most supermarkets.

Similar but smaller niches exist among the Afro-Caribbean communities of France and the UK. Mr. Alvarez considers that the unified EC market may have limited potential for non-Community citrus exporters, because of the dominating presence of Spain within the EC. Grapefruit, however, is exported to a number of EC countries as well as Japan.

Cubatras is actively developing contact with the Canadian market, but has begun exports to Yugoslavia, and

CUBAN CITRUS PRODUCTION ('000 tonnes)					
	1984	1985	1986	1987	1988
Oranges	571	208	441	498	508
Mandarins	20	32	25	25	28
Lemons	48	60	59	75	57
Grapefruit	155	237	280	285	385
Other	5	10	5	5	5
TOTAL	799	335	760	888	983

EXPORTS					
	1984	1985	1986	1987	1988
Oranges	242	281	282	287	280
Mandarins	7	15	17	17	3
Lemons	15	18	17	23	15
Grapefruit	114	161	173	207	258
TOTAL	378	483	499	537	556

Source: Cubatras

seeks to increase sales in Japan. Three years ago, it began to ship oranges to China, which, like Cuba, conducts trade on a pre-empted basis. It also represents a market where an increase in consumption of one orange per

year per capita would require 3m tonnes of oranges, according to calculations by Mr. Alvarez.

Citrus processing began only in 1984 and represents a secondary priority intended mainly to utilise productively fruit of non-export quality. However, development and upgrading of capacity is planned to keep pace with fresh fruit production.

A thorough review of the whole process of production for export, including a programme to educate growers about markets and the importance of fruit quality, is being made as part of the policy of "rectification."

Mr. Alvarez also emphasised flexibility of production. "To be an efficient exporter implies not working to annual plans; the market must be responded to immediately, and that is what is behind our work with the growers," he explained.

The main production areas are two big groves at Jaguey Grande in Matanzas province and the Isle of Youth. A total of 140,000 hectares have been

planted to citrus, 60 per cent of the planned total, but the bulk of the groves are new. Cubatras estimates that when these have fully matured, production may reach four times the current level of about 1m tonnes. Future growth will be based on the use of improved cultivation rather than increased planting.

Costs are kept down by the use of students from special boarding schools as the main labour force for harvesting. The 40,000 hectare Jaguey Grande plantation — probably the largest single citrus area in the world — uses 8,000 full-time workers and 35,000 students, who ensure a continuous flow of agronomists.

Cuba's relatively stable climate means that one variety of citrus at least is being harvested throughout the year and in the absence of frost or serious disease or pest problems, hurricanes represent the only serious natural hazard to confront the industry.

Cubatras is also responsible for the export of other goods, including mangoes, guavas, sweet peppers and ornamental plants. Pineapples — of which Cuba was once a considerable exporter — are likely to be a future target for investment, using new varieties that can be cultivated with mechanised techniques.

## Green costs of mining will outweigh political risks

By Kenneth Gooding, Mining Correspondent

THE RISING COST of environmental measures imposed in the industrialised countries might break down the reluctance of mining companies to invest in areas where political risks are high but costs are low, says the Economist Intelligence Unit.

It points out there is a discernible tendency for new mining and metal investments to be concentrated either in developed countries such as Canada or Australia or on a handful of Third World countries, notably Chile and Indonesia, that "are considered politically safe."

However, while the risks of mining the Third World could well be seen as exceeding those of mining in "safe" countries by a wider margin than before, so too might the rewards. The effect of environmental legislation on mining and smelting costs is likely to be less in developing countries.

The EIU points out, for example, that the government of Papua New Guinea cannot

afford to impose environmental standards on the huge Ok Tedi copper mine that might result in its closure.

"And Chilean and Peruvian smelters are reported to recover only between one third and a half as much sulphur dioxide as US smelters, a differential that could widen with more complete US compliance with the Clean Air Act."

The report also says: "One can be reasonably sure that the cost of metal production in the developed world is going to rise in the 1990s as environmental laws, on hazardous mining waste as well as smelters, get tougher."

Environmental factors will also affect demand, the EIU points out. Recycling will reduce demand for a number of non-ferrous metals while restrictions on the use of cars and incentives to make them from lighter materials, will increase.

"The environmental and political issues come together in a way that will impact the maximum of uncertainty to metal markets," the report concludes.

## Jamaican output of bauxite up

By Canute James in Kingston

JAMAICA's bauxite production in the first three months of this year increased by 34 per cent over the corresponding period of last year to reach 2.58m tonnes, according to the Jamaica Bauxite Institute, a state agency that monitors the activities of the industry.

One exports for the three months were 954,900 tonnes, which the institute said was 7,500 tonnes less than the first quarter of 1989. It said the decline "was due to a lag in the shipments to the USSR which we expect will be made up during the course of the year."

Jamaica supplies the Soviet Union with 1m tonnes of ore a year. The institute reported alumina production for the first three months of 1990 at 879,137 tonnes, 41 per cent higher than the first quarter of 1989. The increase has been attributed to output from a refinery, owned by Kaiser Aluminum and Hydro Aluminum, which was opened in March last year after being having been closed for three and a half years.

## EC relaxes curbs to stamp out classical swine fever

By Tim Dickson in Brussels

RESTRICTIONS designed to stamp out classical swine fever in Belgium have been relaxed by the European Community's veterinary management committee.

The relaxations will afford some relief to hard-pressed Belgian pig producers, although calls for more substantial

changes were firmly ruled out by most member states and the European Commission.

Up to yesterday 61 outbreaks of the disease had been reported to the authorities, the last handful in the immediate "surveillance" zone and attributed to movement by humans rather than by animals.

Mindful of the pressure exerted by its farm lobby, Belgium tried to persuade other members of the committee to reduce the size of the huge buffer zone where all movement and slaughter of pigs has been prohibited for the last month. That idea was rejected although it may be reviewed at

the next meeting of the committee on May 2.

It was, on the other hand, agreed by majority vote that piglets in the buffer zone (which covers around 70 per cent of Belgium's pig production) can now be moved from breeding farms to fattening farms subject to prior clinical

inspection, while pigs in the zone can now be sent to slaughterhouses provided they have a blood test the result of which is negative and a clinical examination.

As one expert in Brussels pointed out last night: "There is going to be a lot of work for Belgian vets."

## MARKET REPORT

ROBUSTA coffee prices went into reverse in London yesterday after news that Brazilian coffee export registrations could open later this week. New York arabica were well down by midsession. Traders said market feeling that Brazil could begin to ship out large quantities once export registrations were resumed put prices on the defensive. Export registrations were suspended with the March 16 abolishment of the IBC, although the registration process is expected to resume by Friday. "Brazil needs money too much to sit on the stocks that are accumulating. And the market is starting to realise that," said

## London Markets

**SPOT MARKETS**  
Crude oil (per barrel FOB) + 0.1  
Dubai \$13.76-13.84 -0.02  
Brent Blend \$16.29-16.32 -0.45  
WTI (1st oil) \$17.47-17.58 -0.75

**Oil products**  
(NWE prompt delivery per tonne CIF) + 0.1  
Premium Gasoline \$20.21-22 -0.3  
Gas Oil \$19.75-19.85 -0.3  
Heavy Fuel Oil \$15.15-15.25 -0.3  
Petroleum Argon Estimates

**Other** + 0.1  
Gold (per troy ounce) \$376.25 -1.25  
Silver (per troy ounce) \$12.25 -0.05  
Platinum (per troy ounce) \$478.50 -0.25  
Palladium (per troy ounce) \$128.35 -0.15

**Aluminium (free market)** \$1500  
Copper (US Producer) 1240  
Lead (US Producer) 500  
Nickel (free market) 4000  
Tin (Kuala Lumpur market) 17,377  
Tin (New York) 3050  
Zinc (US Prime Western) 830

**Cattle (live weight)** 113.50 -0.50  
Sheep (live weight) 255.40 -0.20  
Pigs (live weight) 101.60 -2.00

**London daily sugar (raw)** \$358.00  
London daily sugar (white) \$449.50  
Tide and Lyle export price \$333.5 -0.40

**Barley (English best)** £107  
Maize (US No. 3 yellow) £108.00  
Wheat (US Dark Northern) £110.00

**Rubber (May)** 56.00p -0.25  
Rubber (June) 55.50p -0.25  
Rubber (Oct. RSS No. 1 May) 52.50p +0.5

**Cocoa (oil (Philippines))** \$345.00 -10  
Palm Oil (Malaysia) \$257.5 -7.5  
Cocoa (Philippines) \$232.50 -12.5  
Soyabean (US) \$165.5 -0.5  
Cotton "A" index \$3.20 +0.05  
Wooltops (84s Super) 5520

£ a tonne unless otherwise stated. p-pennance, cents/lb. r-rings/lb. u-uns. m-May, Jun. u-Aug. v-April, Jun. w-April, May. z-June, July. M-Market Commission average London prices. \* change from a week ago. # London physical market. SOF - Rotterdam. \$ - Bullion market close. \$ - Malaysian cents/kg.

one New York analyst. On the LME three-month lead rose back above the 5500 a tonne level, where traders believe it could attempt to consolidate, particularly if the recent increase in LME stocks comes to a halt. Copper was steady, but failure to close above 25,505 a tonne confirmed mildly bearish sentiment. However, low stocks on both sides of the Atlantic and concern over Peruvian supplies were likely to attract further supportive buying, analysts said. Tin closed at the day's high, the mildly bullish tone reflecting concern over Brazil's reduced output.

## Compiled from Reuters

**SUGAR - London POX** (\$ per tonne)  
Raw Cane Previous High/Low  
May 341.20 332.00 343.00 330.00  
Aug 348.00 341.00 351.00 341.00  
Dec 342.00 334.00 344.00 332.00  
Oct 336.00 331.00 339.00  
Mar 317.00 312.00 317.20 311.30  
May 316.20 309.80 310.00

**POTATOES - RPE** £/tonne  
White Cane Previous High/Low  
Aug 441.5 437.0 442.5 434.0  
Oct 419.0 414.5 425.0 415.0  
Mar 397.5 392.0 398.5 388.0  
May 385.0 380.0 385.0  
Aug 380.0 375.0 380.0  
Oct 380.0 375.0 380.0

**CRUDE OIL - RPE** \$/barrel  
Turnover: Raw 6445 (407/0) lots of 50 tonnes.  
White 1141 (701)  
Pure White (RFF per tonne): Aug 2480, Oct 2327, Dec 2248, Mar 2248, May 2253

**GRAIN - RPE** £/tonne  
Wheat Cane Previous High/Low  
Aug 126.50 124.00 126.50 125.50  
Oct 129.50 128.00 129.50 128.50  
Turnover 55 (25) lots of 30 tonnes.

**FRUIT FUTURES - RPE** \$/100lbs point  
Cane Previous High/Low  
Apr 1418 1428 1418 1400  
May 1390 1428 1418 1400  
Jul 1248 1281 1271 1248  
Oct 1245 1285 1265 1250  
BFI 1444 1467 1376 1370  
Turnover 250 (137)

**GRAIN - RPE** £/tonne  
Wheat Cane Previous High/Low  
May 114.70 114.80 115.05 114.20  
Jul 116.50 116.80 117.00 116.50  
Nov 111.20 111.35 111.25 111.20  
Jan 114.70 114.70 114.70 114.70  
May 121.10 121.10 121.10 121.10

**Wool**  
No sales have been made this week in view of Easter holidays. The signs before Easter were not encouraging. In Australia, the AWIC was buying a little more, and British and New Zealand crossbred wool met with reduced demand also. Reluctance to hold stocks during the present festive season causes cautious buying in the UK industry. High interest rates keep activity low and the trade highly competitive.

**SOYABEAN MEAL - RPE** £/tonne  
Cane Previous High/Low  
Aug 126.50 124.00 126.50 125.50  
Oct 129.50 128.00 129.50 128.50  
Turnover 55 (25) lots of 30 tonnes.

## WORLD COMMODITIES PRICES

**LONDON METAL EXCHANGE** (Prices supplied by Amalgamated Metal Trading)  
Cane Previous High/Low  
Aluminium, 99.95% purity (\$ per tonne)  
Aug 1501.4 1474.0 1501.4  
Sep 1515.0 1485.0 1535.0 1515.0  
3 months 1515.0 1485.0 1535.0 1515.0  
Copper, Grade A (\$ per tonne)  
Aug 1620.0 1593.0 1640.0 1620.0  
3 months 1620.0 1593.0 1640.0 1620.0  
Lead (\$ per tonne)  
Aug 517.5 503.0 517.5  
3 months 517.5 503.0 517.5  
Nickel (\$ per tonne)  
Aug 3850.0 3850.0 3850.0 3850.0  
3 months 3850.0 3850.0 3850.0 3850.0  
Tin (\$ per tonne)  
Aug 5920.0 5850.0 5920.0 5850.0  
3 months 5920.0 5850.0 5920.0 5850.0  
Zinc, Special High Grade (\$ per tonne)  
Aug 1641.0 1637.0 1642.0 1641.0  
3 months 1641.0 1637.0 1642.0 1641.0  
LME Closing 578 rate  
SPOT: 1.6225 3 months 1.6232 5 months 1.5735 8 months 1.5840

**LONDON METAL MARKET**  
Gold (fine oz) \$ price £ equivalent  
Cane Previous High/Low  
Aug 375.375 375.375 375.375  
Sep 375.375 375.375 375.375  
Oct 375.375 375.375 375.375  
Nov 375.375 375.375 375.375  
Dec 375.375 375.375 375.375  
Jan 375.375 375.375 375.375  
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Mar 375.375 375.375 375.375  
Apr 375.375 375.375 375







## LONDON SHARE SERVICE

**BANKS, HP & LEASING**[illegible]

## BUILDING. TIMBER. ROADS

[illegible]

## CHEMICALS, PLASTICS

1643	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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## DRAPERY AND STORES

DRAPERY AND STORES		DRAPERY AND STORES	
167	1228 Astor Pl. 50.	143	122
168	1228 Astor Pl. 50.	144	123
169	1228 Astor Pl. 50.	145	124
170	1228 Astor Pl. 50.	146	125
171	1228 Astor Pl. 50.	147	126
172	1228 Astor Pl. 50.	148	127
173	1228 Astor Pl. 50.	149	128
174	1228 Astor Pl. 50.	150	129
175	1228 Astor Pl. 50.	151	130
176	1228 Astor Pl. 50.	152	131
177	1228 Astor Pl. 50.	153	132
178	1228 Astor Pl. 50.	154	133
179	1228 Astor Pl. 50.	155	134
180	1228 Astor Pl. 50.	156	135
181	1228 Astor Pl. 50.	157	136
182	1228 Astor Pl. 50.	158	137
183	1228 Astor Pl. 50.	159	138
184	1228 Astor Pl. 50.	160	139
185	1228 Astor Pl. 50.	161	140
186	1228 Astor Pl. 50.	162	141
187	1228 Astor Pl. 50.	163	142
188	1228 Astor Pl. 50.	164	143
189	1228 Astor Pl. 50.	165	144
190	1228 Astor Pl. 50.	166	145
191	1228 Astor Pl. 50.	167	146
192	1228 Astor Pl. 50.	168	147
193	1228 Astor Pl. 50.	169	148
194	1228 Astor Pl. 50.	170	149
195	1228 Astor Pl. 50.	171	150
196	1228 Astor Pl. 50.	172	151
197	1228 Astor Pl. 50.	173	152
198	1228 Astor Pl. 50.	174	153
199	1228 Astor Pl. 50.	175	154
200	1228 Astor Pl. 50.	176	155
201	1228 Astor Pl. 50.	177	156
202	1228 Astor Pl. 50.	178	157
203	1228 Astor Pl. 50.	179	158
204	1228 Astor Pl. 50.	180	159
205	1228 Astor Pl. 50.	181	160
206	1228 Astor Pl. 50.	182	161
207	1228 Astor Pl. 50.	183	162
208	1228 Astor Pl. 50.	184	163
209	1228 Astor Pl. 50.	185	164
210	1228 Astor Pl. 50.	186	165
211	1228 Astor Pl. 50.	187	166
212	1228 Astor Pl. 50.	188	167
213	1228 Astor Pl. 50.	189	168
214	1228 Astor Pl. 50.	190	169
215	1228 Astor Pl. 50.	191	170
216	1228 Astor Pl. 50.	192	171
217	1228 Astor Pl. 50.	193	172
218	1228 Astor Pl. 50.	194	173
219	1228 Astor Pl. 50.	195	174
220	1228 Astor Pl. 50.	196	175
221	1228 Astor Pl. 50.	197	176
222	1228 Astor Pl. 50.	198	177
223	1228 Astor Pl. 50.	199	178
224	1228 Astor Pl. 50.	200	179
225	1228 Astor Pl. 50.	201	180
226	1228 Astor Pl. 50.	202	181
227	1228 Astor Pl. 50.	203	182
228	1228 Astor Pl. 50.	204	183
229	1228 Astor Pl. 50.	205	184
230	1228 Astor Pl. 50.	206	185
231	1228 Astor Pl. 50.	207	186
232	1228 Astor Pl. 50.	208	187
233	1228 Astor Pl. 50.	209	188
234	1228 Astor Pl. 50.	210	189
235	1228 Astor Pl. 50.	211	190
236	1228 Astor Pl. 50.	212	191
237	1228 Astor Pl. 50.	213	192
238	1228 Astor Pl. 50.	214	193
239	1228 Astor Pl. 50.	215	194
240	1228 Astor Pl. 50.	216	195
241	1228 Astor Pl. 50.	217	196
242	1228 Astor Pl. 50.	218	197
243	1228 Astor Pl. 50.	219	198
244	1228 Astor Pl. 50.	220	199
245		221	200
246			

### ELECTRICALS – Contd

[illegible]**ENGINEERING—Cont**

1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	9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## INDUSTRIALS (MISCEL.)—Contd.

[illegible]**BEERS, WINES & SPIRITS**

1941	201	Allyn	621	3	71.0	2.4	4.1	10
1942	202	Allyn	621	3	71.0	2.4	4.1	10
1943	199	Bugbee	735	4	28.2	1.1	4.0	16
1944	198	Bugbee	735	4	28.2	1.1	4.0	16
1945	197	Bugbee	735	4	28.2	1.1	4.0	16
1946	196	Bugbee	735	4	28.2	1.1	4.0	16
1947	195	Bugbee	735	4	28.2	1.1	4.0	16
1948	194	Bugbee	735	4	28.2	1.1	4.0	16
1949	193	Bugbee	735	4	28.2	1.1	4.0	16
1950	192	Bugbee	735	4	28.2	1.1	4.0	16
1951	191	Bugbee	735	4	28.2	1.1	4.0	16
1952	190	Bugbee	735	4	28.2	1.1	4.0	16
1953	189	Bugbee	735	4	28.2	1.1	4.0	16
1954	188	Bugbee	735	4	28.2	1.1	4.0	16
1955	187	Bugbee	735	4	28.2	1.1	4.0	16
1956	186	Bugbee	735	4	28.2	1.1	4.0	16
1957	185	Bugbee	735	4	28.2	1.1	4.0	16
1958	184	Bugbee	735	4	28.2	1.1	4.0	16
1959	183	Bugbee	735	4	28.2	1.1	4.0	16
1960	182	Bugbee	735	4	28.2	1.1	4.0	16
1961	181	Bugbee	735	4	28.2	1.1	4.0	16
1962	180	Bugbee	735	4	28.2	1.1	4.0	16
1963	179	Bugbee	735	4	28.2	1.1	4.0	16
1964	178	Bugbee	735	4	28.2	1.1	4.0	16
1965	177	Bugbee	735	4	28.2	1.1	4.0	16
1966	176	Bugbee	735	4	28.2	1.1	4.0	16
1967	175	Bugbee	735	4	28.2	1.1	4.0	16
1968	174	Bugbee	735	4	28.2	1.1	4.0	16
1969	173	Bugbee	735	4	28.2	1.1	4.0	16
1970	172	Bugbee	735	4	28.2	1.1	4.0	16
1971	171	Bugbee	735	4	28.2	1.1	4.0	16
1972	170	Bugbee	735	4	28.2	1.1	4.0	16
1973	169	Bugbee	735	4	28.2	1.1	4.0	16
1974	168	Bugbee	735	4	28.2	1.1	4.0	16
1975	167	Bugbee	735	4	28.2	1.1	4.0	16
1976	166	Bugbee	735	4	28.2	1.1	4.0	16
1977	165	Bugbee	735	4	28.2	1.1	4.0	16
1978	164	Bugbee	735	4	28.2	1.1	4.0	16
1979	163	Bugbee	735	4	28.2	1.1	4.0	16
1980	162	Bugbee	735	4	28.2	1.1	4.0	16
1981	161	Bugbee	735	4	28.2	1.1	4.0	16
1982	160	Bugbee	735	4	28.2	1.1	4.0	16
1983	159	Bugbee	735	4	28.2	1.1	4.0	16
1984	158	Bugbee	735	4	28.2	1.1	4.0	16
1985	157	Bugbee	735	4	28.2	1.1	4.0	16
1986	156	Bugbee	735	4	28.2	1.1	4.0	16
1987	155	Bugbee	735	4	28.2	1.1	4.0	16
1988	154	Bugbee	735	4	28.2	1.1	4.0	16
1989	153	Bugbee	735	4	28.2	1.1	4.0	16
1990	152	Bugbee	735	4	28.2	1.1	4.0	16
1991	151	Bugbee	735	4	28.2	1.1	4.0	16
1992	150	Bugbee	735	4	28.2	1.1	4.0	16
1993	149	Bugbee	735	4	28.2	1.1	4.0	16
1994	148	Bugbee	735	4	28.2	1.1	4.0	16
1995	147	Bugbee	735	4	28.2	1.1	4.0	16
1996	146	Bugbee	735	4	28.2	1.1	4.0	16
1997	145	Bugbee	735	4	28.2	1.1	4.0	16
1998	144	Bugbee	735	4	28.2	1.1	4.0	16
1999	143	Bugbee	735	4	28.2	1.1	4.0	16
2000	142	Bugbee	735	4	28.2	1.1	4.0	16
2001	141	Bugbee	735	4	28.2	1.1	4.0	16
2002	140	Bugbee	735	4	28.2	1.1	4.0	16
2003	139	Bugbee	735	4	28.2	1.1	4.0	16
2004	138	Bugbee	735	4	28.2	1.1	4.0	16
2005	137	Bugbee	735	4	28.2	1.1	4.0	16
2006	136	Bugbee	735	4	28.2	1.1	4.0	16
2007	135	Bugbee	735	4	28.2	1.1	4.0	16
2008	134	Bugbee	735	4	28.2	1.1	4.0	16
2009	133	Bugbee	735	4	28.2	1.1	4.0	16
2010	132	Bugbee	735	4	28.2	1.1	4.0	16
2011	131	Bugbee	735	4	28.2	1.1	4.0	16
2012	130	Bugbee	735	4	28.2	1.1	4.0	16
2013	129	Bugbee	735	4	28.2	1.1	4.0	16
2014	128	Bugbee	735	4	28.2	1.1	4.0	16
2015	127	Bugbee	735	4	28.2	1.1	4.0	16
2016	126	Bugbee	735	4	28.2	1.1	4.0	16
2017	125	Bugbee	735	4	28.2	1.1	4.0	16
2018	124	Bugbee	735	4	28.2	1.1	4.0	16
2019	123	Bugbee	735	4	28.2	1.1	4.0	16
2020	122	Bugbee	735	4	28.2	1.1	4.0	16
2021	121	Bugbee	735	4	28.2	1.1	4.0	16
2022	120	Bugbee	735	4	28.2	1.1	4.0	16
2023	119	Bugbee	735	4	28.2	1.1	4.0	16
2024	118	Bugbee	735	4	28.2	1.1	4.0	16
2025	117	Bugbee	735	4	28.2	1.1	4.0	16
2026	116	Bugbee	735	4	28.2	1.1	4.0	16
2027	115	Bugbee	735	4	28.2	1.1	4.0	16
2028	114	Bugbee	735	4	28.2	1.1	4.0	16
2029	113	Bugbee	735	4	28.2	1.1	4.0	16
2030	112	Bugbee	735	4	28.2	1.1	4.0	16
2031	111	Bugbee	735	4	28.2	1.1	4.0	16
2032	110	Bugbee	735	4	28.2	1.1	4.0	16
2033	109	Bugbee	735	4	28.2	1.1	4.0	16
2034	108	Bugbee	735	4	28.2	1.1	4.0	16
2035	107	Bugbee	735	4	28.2	1.1	4.0	16
2036	106	Bugbee	735	4	28.2	1.1	4.0	16
2037	105	Bugbee	735	4	28.2	1.1	4.0	16
2038	104	Bugbee	735	4	28.2	1.1	4.0	16
2039	103	Bugbee	735	4	28.2	1.1	4.0	16
2040	102	Bugbee	735	4	28.2	1.1	4.0	16
2041	101	Bugbee	735	4	28.2	1.1	4.0	16
2042	100	Bugbee	735	4	28.2	1.1	4.0	16
2043	99	Bugbee	735	4	28.2	1.1	4.0	16
2044	98	Bugbee	735	4	28.2	1.1	4.0	16
2045	97	Bugbee	735	4	28.2	1.1	4.0	16
2046	96	Bugbee	735	4	28.2	1.1	4.0	16
2047	95	Bugbee	735	4	28.2	1.1	4.0	16
2048	94	Bugbee	735	4	28.2	1.1	4.0	16
2049	93	Bugbee	735	4	28.2	1.1	4.0	16
2050	92	Bugbee	735	4	28.2	1.1	4.0	16
2051	91	Bugbee	735	4	28.2	1.1	4.0	16
2052	90	Bugbee	735	4	28.2	1.1	4.0	16
2053	89	Bugbee	735	4	28.2	1.1	4.0	16
2054	88	Bugbee	735	4	28.2	1.1	4.0	16
2055	87	Bugbee	735	4	28.2	1.1	4.0	16
2056	86	Bugbee	735	4	28.2	1.1	4.0	16
2057	85	Bugbee	735	4	28.2	1.1	4.0	16
2058	84	Bugbee	735	4	28.2	1.1	4.0	16
2059	83	Bugbee	735	4	28.2	1.1	4.0	16
2060	82	Bugbee	735	4	28.2	1.1	4.0	16
2061	81	Bugbee	735	4	28.2	1.1	4.0	16
2062	80	Bugbee	735	4	28.2	1.1	4.0	16
2063	79	Bugbee	735	4	28.2	1.1	4.0	16
2064	78	Bugbee	735	4	28.2	1.1	4.0	16
2065	77	Bugbee	735	4	28.2	1.1	4.0	16
2066	76	Bugbee	735	4	28.2	1.1	4.0	16
2067	75	Bugbee	735	4	28.2	1.1	4.0	16
2068	74	Bugbee	735	4	28.2	1.1	4.0	16
2069	73	Bugbee	735	4	28.2	1.1	4.0	16
2070	72	Bugbee	735	4	28.2	1.1	4.0	16
2071	71	Bugbee	735	4	28.2	1.1	4.0	16
2072	70	Bugbee	735	4	28.2	1.1	4.0	16
2073	69	Bugbee	735	4	28.2	1.1	4.0	16
2074	68	Bugbee	735	4	28.2	1.1	4.0	16
2075	67	Bugbee	735	4	28.2	1.1	4.0	16
2076	66	Bugbee	735	4	28.2	1.1	4.0	16
2077	65	Bugbee	735	4	28.2	1.1	4.0	16
2078	64	Bugbee	735	4	28.2	1.1	4.0	16
2079	63	Bugbee	735	4	28.2	1.1	4.0	16
2080	62	Bugbee	735	4	28.2	1.1	4.0	16
2081	61	Bugbee	735	4	28.2	1.1	4.0	16
2082	60	Bugbee	735	4	28.2	1.1	4.0	16
2083	59	Bugbee	735	4	28.2	1.1	4.0	16
2084	58	Bugbee	735	4	28.2	1.1	4.0	16
2085	57	Bugbee	735	4	28.2	1.1	4.0	16
2086	56	Bugbee	735	4	28.2	1.1	4.0	16
2087	55	Bugbee	735	4	28.2	1.1	4.0	16
2088	54	Bugbee	735	4	28.2	1.1	4.0	16
2089	53	Bugbee	735	4	28.2	1.1	4.0	16
2090	52	Bugbee	735	4	28.2	1.1	4.0	16
2091	51	Bugbee	735	4	28.2	1.1	4.0	16
2092	50	Bugbee	735	4	28.2	1.1	4.0	16
2093	49	Bugbee	735	4	28.2	1.1	4.0	16
2094	48	Bugbee	735	4	28.2	1.1	4.0	16
2095	47	Bugbee	735	4	28.2	1.1	4.0	16
2096	46	Bugbee	735	4	28.2	1.1	4.0	16
2097	45	Bugbee	735	4	28.2	1.1	4.0	16
2098	44	Bugbee	735	4	28.2	1.1	4.0	16
2099	43	Bugbee	735	4	28.2	1.1	4.0	16
2100	42	Bugbee	735	4	28.2	1.1	4.0	16
2101	41	Bugbee	735	4	28.2	1.1	4.0	16
2102	40	Bugbee	735	4	28.2	1.1	4.0	16
2103	39	Bugbee	735	4	28.2	1.1	4.0	16
2104	38	Bugbee	735	4	28.2	1.1	4.0	16
2105	37	Bugbee	735	4	28.2	1.1	4.0	16
2106	36	Bugbee	735	4	28.2	1.1	4.0	16
2107	35	Bugbee	735	4	28.2	1.1	4.0	16
2108	34	Bugbee	735	4	28.2	1.1	4.0	16
2109	33</							

## BUILDING, TIMBER, ROAD

BUILDING, FURNITURE, ROADS		MATERIALS		ELECTRICITY		TRANSPORTATION		TELECOMMUNICATIONS		OTHER	
1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
100	100	100	100	100	100	100	100	100	100	100	100
101	102	103	104	105	106	107	108	109	110	111	112
113	114	115	116	117	118	119	120	121	122	123	124
125	126	127	128	129	130	131	132	133	134	135	136
137	138	139	140	141	142	143	144	145	146	147	148
149	150	151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170	171	172
173	174	175	176	177	178	179	180	181	182	183	184
185	186	187	188	189	190	191	192	193	194	195	196
197	198	199	200	201	202	203	204	205	206	207	208
209	210	211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230	231	232
233	234	235	236	237	238	239	240	241	242	243	244
245	246	247	248	249	250	251	252	253	254	255	256
257	258	259	260	261	262	263	264	265	266	267	268
269	270	271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290	291	292
293	294	295	296	297	298	299	300	301	302	303	304
305	306	307	308	309	310	311	312	313	314	315	316
317	318	319	320	321	322	323	324	325	326	327	328
329	330	331	332	333	334	335	336	337	338	339	340
341	342	343	344	345	346	347	348	349	350	351	352
353	354	355	356	357	358	359	360	361	362	363	364
365	366	367	368	369	370	371	372	373	374	375	376
377	378	379	380	381	382	383	384	385	386	387	388
389	390	391	392	393	394	395	396	397	398	399	400

## ENGINEERING

157	1271/104	10	1280	6.4	4.0	5.9
158	2045SW High 50s	24	130	11.0	4.0	5.9
159	1041 Turner Ave	1	130	7.0	2.0	6.1
170	1041 Turner Ave	1	130	7.0	2.0	6.1
171	1041 Turner Ave	1	130	7.0	2.0	6.1
172	1041 Turner Ave	1	130	7.0	2.0	6.1
173	1041 Turner Ave	1	130	7.0	2.0	6.1
174	1041 Turner Ave	1	130	7.0	2.0	6.1
175	1041 Turner Ave	1	130	7.0	2.0	6.1
176	1041 Turner Ave	1	130	7.0	2.0	6.1
177	1041 Turner Ave	1	130	7.0	2.0	6.1
178	1041 Turner Ave	1	130	7.0	2.0	6.1
179	1041 Turner Ave	1	130	7.0	2.0	6.1
180	1041 Turner Ave	1	130	7.0	2.0	6.1
181	1041 Turner Ave	1	130	7.0	2.0	6.1
182	1041 Turner Ave	1	130	7.0	2.0	6.1
183	1041 Turner Ave	1	130	7.0	2.0	6.1
184	1041 Turner Ave	1	130	7.0	2.0	6.1
185	1041 Turner Ave	1	130	7.0	2.0	6.1
186	1041 Turner Ave	1	130	7.0	2.0	6.1
187	1041 Turner Ave	1	130	7.0	2.0	6.1
188	1041 Turner Ave	1	130	7.0	2.0	6.1
189	1041 Turner Ave	1	130	7.0	2.0	6.1
190	1041 Turner Ave	1	130	7.0	2.0	6.1
191	1041 Turner Ave	1	130	7.0	2.0	6.1
192	1041 Turner Ave	1	130	7.0	2.0	6.1
193	1041 Turner Ave	1	130	7.0	2.0	6.1
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320	1041 Turner Ave	1	130	7.0	2.0	6.1
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322	1041 Turner Ave	1	130	7.0	2.0	6.1
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324	1041 Turner Ave	1	130	7.0	2.0	6.1
325	1041 Turner Ave	1	130	7.0	2.0	6.1
326	1041 Turner Ave	1	130	7.0	2.0	6.1
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339	1041 Turner Ave	1	130	7.0	2.0	6.1
340	1041 Turner Ave	1	130	7.0	2.0	6.1
341	1041 Turner Ave	1	130	7.0	2.0	6.1
342	1041 Turner Ave	1	130	7.0	2.0	6.1
343	1041 Turner Ave	1	130	7.0	2.0	6.1
344	1041 Turner Ave	1	130	7.0	2.0	6.1
345	1041 Turner Ave	1	130	7.0	2.0	6.1
346	1041 Turner Ave	1	130	7.0	2.0	6.1
347	1041 Turner Ave	1	130	7.0	2.0	6.1
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350	1041 Turner Ave	1	130	7.0	2.0	6.1
351	1041 Turner Ave	1	130	7.0	2.0	6.1
352	1041 Turner Ave	1	130	7.0	2.0	6.1
353	1041 Turner Ave	1	130	7.0	2.0	6.1
354	1041 Turner Ave	1	130	7.0	2.0	6.1
355	1041 Turner Ave	1	130	7.0	2.0	6.1
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359	1041 Turner Ave	1	130	7.0	2.0	6.1
360	1041 Turner Ave	1	130	7.0	2.0	6.1
361	1041 Turner Ave	1	130	7.0	2.0	6.1
362	1041 Turner Ave	1	130	7.0	2.0	6.1
363	1041 Turner Ave	1	130	7.0	2.0	6.1
364	1041 Turner Ave	1	130	7.0	2.0	6.1
365	1041 Turner Ave	1	130	7.0	2.0	6.1
366	1041 Turner Ave	1	130	7.0	2.0	6.1
367	1041 Turner Ave	1	130	7.0	2.0	6.1
368	1041 Turner Ave	1	130	7.0	2.0	6.1
369	1041 Turner Ave	1	130	7.0	2.0	

## INDUSTRIALS (Miscel.

[illegible]

## INSURANCES

1972		1971		1970		1969		1968		1967		1966		1965		1964		1963		1962		1961		1960		1959		1958		1957		1956		1955		1954		1953		1952		1951		1950		1949		1948		1947		1946		1945		1944		1943		1942		1941		1940		1939		1938		1937		1936		1935		1934		1933		1932		1931		1930		1929		1928		1927		1926		1925		1924		1923		1922		1921		1920		1919		1918		1917		1916		1915		1914		1913		1912		1911		1910		1909		1908		1907		1906		1905		1904		1903		1902		1901		1900		1899		1898		1897		1896		1895		1894		1893		1892		1891		1890		1889		1888		1887		1886		1885		1884		1883		1882		1881		1880		1879		1878		1877		1876		1875		1874		1873		1872		1871		1870		1869		1868		1867		1866		1865		1864		1863		1862		1861		1860		1859		1858		1857		1856		1855		1854		1853		1852		1851		1850		1849		1848		1847		1846		1845		1844		1843		1842		1841		1840		1839		1838		1837		1836		1835		1834		1833		1832		1831		1830		1829		1828		1827		1826		1825		1824		1823		1822		1821		1820		1819		1818		1817		1816		1815		1814		1813		1812		1811		1810		1809		1808		1807		1806		1805		1804		1803		1802		1801		1800		1799		1798		1797		1796		1795		1794		1793		1792		1791		1790		1789		1788		1787		1786		1785		1784		1783		1782		1781		1780		1779		1778		1777		1776		1775		1774		1773		1772		1771		1770		1769		1768		1767		1766		1765		1764		1763		1762		1761		1760		1759		1758		1757		1756		1755		1754		1753		1752		1751		1750		1749		1748		1747		1746		1745		1744		1743		1742		1741		1740		1739		1738		1737		1736		1735		1734		1733		1732		1731		1730		1729		1728		1727		1726		1725		1724		1723		1722		1721		1720		1719		1718		1717		1716		1715		1714		1713		1712		1711		1710		1709		1708		1707		1706		1705		1704		1703		1702		1701		1700		1699		1698		1697		1696		1695		1694		1693		1692		1691		1690		1689		1688		1687		1686		1685		1684		1683		1682		1681		1680		1679		1678		1677		1676		1675		1674		1673		1672		1671		1670		1669		1668		1667		1666		1665		1664		1663		1662		1661		1660		1659	
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1990	1989	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	1909	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891	1890	1889	1888	1887	1886	1885	1884	1883	1882	1881	1880	1879	1878	1877	1876	1875	1874	1873	1872	1871	1870	1869	1868	1867	1866	1865	1864	1863	1862	1861	1860	1859	1858	1857	1856	1855	1854	1853	1852	1851	1850	1849	1848	1847	1846	1845	1844	1843	1842	1841	1840	1839	1838	1837	1836	1835	1834	1833	1832	1831	1830	1829	1828	1827	1826	1825	1824	1823	1822	1821	1820	1819	1818	1817	1816	1815	1814	1813	1812	1811	1810	1809	1808	1807	1806	1805	1804	1803	1802	1801	1800	1799	1798	1797	1796	1795	1794	1793	1792	1791	1790	1789	1788	1787	1786	1785	1784	1783	1782	1781	1780	1779	1778	1777	1776	1775	1774	1773	1772	1771	1770	1769	1768	1767	1766	1765	1764	1763	1762	1761	1760	1759	1758	1757	1756	1755	1754	1753	1752	1751	1750	1749	1748	1747	1746	1745	1744	1743	1742	1741	1740	1739	1738	1737	1736	1735	1734	1733	1732	1731	1730	1729	1728	1727	1726	1725	1724	1723	1722	1721	1720	1719	1718	1717	1716	1715	1714	1713	1712	1711	1710	1709	1708	1707	1706	1705	1704	1703	1702	1701	1700	1699	1698	1697	1696	1695	1694	1693	1692	1691	1690	1689	1688	1687	1686	1685	1684	1683	1682	1681	1680	1679	1678	1677	1676	1675	1674	1673	1672	1671	1670	1669	1668	1667	1666	1665	1664	1663	1662	1661	1660	1659	1658	1657	1656	1655	1654	1653	1652	1651	1650	1649	1648	1647	1646	1645	1644	1643	1642	1641	1640	1639	1638	1637	1636	1635	1634	1633	1632	1631	1630	1629	1628	1627	1626	1625	1624	1623	1622	1621	1620	1619	1618	1617	1616	1615	1614	1613	1612	1611	1610	1609	1608	1607	1606	1605	1604	1603	1602	1601	1600	1599	1598	1597	1596	1595	1594	1593	1592	1591	1590	1589	1588	1587	1586	1585	1584	1583	1582	1581	1580	1579	1578	1577	1576	1575	1574	1573	1572	1571	1570	1569	1568	1567	1566	1565	1564	1563	1562	1561	1560	1559	1558	1557	1556	1555	1554	1553	1552	1551	1550	1549	1548	1547	1546	1545	1544	1543	1542	1541	1540	1539	1538	1537	1536	1535	1534	1533	1532	1531	1530	1529	1528	1527	1526	1525	1524	1523	1522	1521	1520	1519	1518	1517	1516	1515	1514	1513	1512	1511	1510	1509	1508	1507	1506	1505	1504	1503	1502	1501	1500	1499	1498	1497	1496	1495	1494	1493	1492	1491	1490	1489	1488	1487	1486	1485	1484	1483	1482	1481	1480	1479	1478	1477	1476	1475	1474	1473	1472	1471	1470	1469	1468	1467	1466	1465	1464	1463	1462	1461	1460	1459	1458	1457	1456	1455	1454	1453	1452	1451	1450	1449	1448	1447	1446	1445	1444	1443	1442	1441	1440	1439	1438	1437	1436	1435	1434	1433	1432	1431	1430	1429	1428	1427	1426	1425	1424	1423	1422	1421	1420	1419	1418	1417	1416	1415	1414	1413	1412	1411	1410	1409	1408	1407	1406	1405	1404	1403	1402	1401	1400	1399	1398	1397	1396	1395	1394	1393	1392	1391	1390	1389	1388	1387	1386	1385	1384	1383	1382	1381	1380	1379	1378	1377	1376	1375	1374	1373	1372	1371	1370	1369	1368	1367	1366	1365	1364	1363	1362	1361	1360	1359	1358	1357	1356	1355	1354	1353	1352	1351	1350	1349	1348	1347	1346	1345	1344	1343	1342	1341	1340	1339	1338	1337	1336	1335	1334	1333	1332	1331	1330	1329	1328	1327	1326	1325	1324	1323	1322	1321	1320	1319	1318	1317	1316	1315	1314	1313	1312	1311	1310	1309	1308	1307	1306	1305	1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1294	1293	1292	1291	1290	1289	1288	1287	1286	1285	1284	1283	1282	1281	1280	1279	1278	1277	1276	1275	1274	1273	1272	1271	1270	1269	1268	1267	1266	1265	1264	1263	1262	1261	1260	1259	1258	1257	1256	1255	1254	1253	1252	1251	1250	1249	1248	1247	1246	1245	1244	1243	1242	1241	1240	1239	1238	1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1226	1225	1224	1223	1222	1221	1220	1219	1218	1217	1216	1215	1214	1213	1212	1211	1210	1209	1208	1207	1206	1205	1204	1203	1202	1201	1200	1199	1198	1197	1196	1195	1194	1193	1192	1191	1190	1189	1188	1187	1186	1185	1184	1183	1182	1181	1180	1179	1178	1177	1176	1175	1174	1173	1172	1171	1170	1169	1168	1167	1166	1165	1164	1163	1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1150	1149	1148	1147	1146	1145	1144	1143	1142	1141	1140	1139	1138	1137	1136	1135	1134	1133	1132	1131	1130	1129	1128	1127	1126	1125	1124	1123	1122	1121	1120	1119	1118	1117	1116	1115	1114	1113	1112	1111	1110	1109	1108	1107	1106	1105	1104	1103	1102	1101	1100	1099	1098	1097	1096	1095	1094	1093	1092	1091	1090	1089	1088	1087	1086	1085	1084	1083	1082	1081	1080	1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	1066	1065	1064	1063	1062	1061	1060	1059	1058	1057	1056	1055	1054	1053	1052	1051	1050	1049	1048	1047	1046	1045	1044	1043	1042	1041	1040	1039	1038	1037	1036	1035	1034	1033	1032	1031	1030	1029	1028	1027	1026	1025	1024	1023	1022	1021	1020	1019	1018	1017	1016	1015	1014	1013	1012	1011	1010	1009	1008	1007	1006	1005	1004	1003	1002	1001	1000	999	998	997	996	995	994	993	992	991	990	989	9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**Money Market  
Bank Account**



## CURRENCIES, MONEY AND CAPITAL MARKETS

## FOREIGN EXCHANGES

## Dollar down despite trade data

Good US trade figures failed to push the dollar higher yesterday and appeared to be regarded as an opportunity to unwind a recent build up of long positions in the currency. The situation was similar to last September when the dollar fell on better than expected US trade data, after failing to break through a strong resistance point against the D-Mark. The yen was the main focal point yesterday, however, with the dollar falling back after it failed to break through \$160.00.

It was difficult to tell how impressed the market was with the trade news. An improvement on the January deficit of \$3.3bn had been heavily discounted, with most forecasts in the region of \$7.5bn-\$8.0bn, but some very optimistic figures below \$5bn were suggested in recent days. Nevertheless, the February shortfall of \$6.4bn was the lowest monthly figure for more than six years, and the dollar's fall has led to speculation that the currency may have reached a near-term peak.

After briefly flirting with \$160.00 the dollar fell back to close in London at \$159.10, against \$159.90 on Tuesday. It also declined to DM1.6720 from DM1.6770, to SF1.4635 from SF1.4690, and to FF3.6300 from FF3.6375. The dollar's

index fell to 68.3 from 68.7. Sterling gave up early gains to finish weaker on the day against the main trading currencies, other than the dollar. UK economic data released yesterday were a mixed bag, but in general the good news of a larger than forecast fall in retail sales failed to offset concern about falling industrial production and rising unit wage costs. Analysts said that although the fall of 1.4 per cent in March retail sales was more than the expected 0.8 per cent forecast, it was not a great surprise. They considered a year-on-year rise of 7.2 per cent in March unit wage costs to be more significant, and were also concerned at a fall of 0.7 per cent in February industrial production against forecasts of a flat month.

The pound appeared to weather these figures reasonably well, but the vote to strike by UK power workers, in rejection

of an 8.5 per cent pay offer led to some nervous selling of the currency. At the close in London sterling had gained 30 points to \$1.6375 against a weakening dollar, but fell to DM2.7375 from DM2.7400, to SF2.9300 from SF2.9350, and to FF3.9025 from FF3.9150. The pound's index finished unchanged at 86.7.

The yen was helped by the dollar's decline and by a subdued performance from the D-Mark. The West German currency fell to ¥96.15 from ¥95.25 at the London close and was also slightly easier against several members of the European Monetary System, falling to L734.45 from L734.95 and to FF3.3610 from FF3.3615.

The Spanish peseta was the strongest EMS currency, but the lira was also firm, touching its cross rate limit against the lowest placed Belgian franc.

EMS EUROPEAN CURRENCY UNIT RATES				
	Unit	Current rate	% change from 1990	% change from 1989
Belgian franc	100	42.2900	+0.31	+1.5500
French franc	100	6.5596	-0.17	-1.6453
German D-Mark	100	1.9364	-0.17	-1.1762
Italian Lira	1,000	1,936.26	-0.14	-1.3618
Dutch Guilder	100	2.3636	-0.14	-1.5772
Irish Punt	100	0.78656	-0.14	-1.5669
Spanish Peseta	100	166.64	-1.59	-1.5662
Portuguese Escudo	100	200.48	-1.59	-1.5705

Changes are for Euro, therefore positive change denotes a weak currency adjustment calculated by Financial Times

C IN NEW YORK		
Apr. 18	Latest	Previous
1 month	1.6300-1.6350	1.6300-1.6350
3 months	1.6300-1.6350	1.6300-1.6350
6 months	1.6300-1.6350	1.6300-1.6350
12 months	1.6300-1.6350	1.6300-1.6350

Forward premiums and discounts apply to the US dollar

STERLING INDEX		
Apr. 18	Latest	Previous
8.30 am	86.9	86.6
9.00 am	86.9	86.6
10.00 am	86.9	86.6
11.00 am	86.9	86.6
12.00 pm	86.9	86.6
1.00 pm	86.9	86.6
2.00 pm	86.9	86.6
3.00 pm	86.9	86.6
4.00 pm	86.9	86.6

Commercial rates taken towards the end of London trading. Six-month forward dollar \$1.64-1.65, 12-month \$1.64-1.65

Source: Reuters

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## FINANCIAL FUTURES AND OPTIONS

## LIFTS LONG PUTS FUTURES OPTIONS

Estimated volume total, Cals 1255 Puts 1250  
Previous day's open Int. Cals 1255 Puts 1250

Strike	Call	Put	Call	Put
77	4.00	0.00	0.00	0.00
78	3.50	0.00	0.00	0.00
79	3.00	0.00	0.00	0.00
80	2.50	0.00	0.00	0.00
81	2.00	0.00	0.00	0.00
82	1.50	0.00	0.00	0.00
83	1.00	0.00	0.00	0.00
84	0.50	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00

Estimated volume total, Cals 1255 Puts 1250  
Previous day's open Int. Cals 1255 Puts 1250

Estimated volume total, Cals 1255 Puts 1250  
Previous day's open Int. Cals 1255 Puts 1250

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Estimated volume total, Cals 1255 Puts 1250  
Previous day's open Int. Cals 1255 Puts 1250

Estimated volume total, Cals 1255 Puts 1250  
Previous day's open Int



## WORLD STOCK MARKETS

AUSTRIA			FRANCE (continued)			GERMANY (continued)			ITALY (continued)			NETHERLANDS			SPAIN			FINLAND			JAPAN			KOREA			MALAYSIA			SINGAPORE			THAILAND			HONG KONG			AUSTRALIA			NEW ZEALAND			SOUTH AFRICA			INDONESIA			PHILIPPINES			VIETNAM			BURMA			CAMBODIA			LAOS			MYANMAR			BANGLADESH			PAKISTAN			INDIA			SRI LANKA			NEPAL			BHUTAN			MALDIVES			SLOVENIA			CROATIA			SERBIA			MONTENEGRO			MACEDONIA			ALBANIA			ROMANIA			BULGARIA			GREECE			TURKEY			CYPRUS			ISRAEL			JORDAN			LEBANON			SYRIA			IRAQ			KUWAIT			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN			OMAN			YEMEN			SAUDI ARABIA			UNITED ARAB EMIRATES			QATAR			BAHRAIN					
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**3pm prices April 18**

## NEW YORK STOCK EXCHANGE COMPOSITE PRICES

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**Continued on Page 49**



## NYSE COMPOSITE PRICES

[illegible]**NASDAQ NATIONAL MARKET**

3pm prices April 18

[illegible]

## AMEX COMPOSITE PRICES

3pm prices

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AMERICA

# Equities decline despite reduced US trade gap

## Wall Street

AFTER holding steady in the immediate wake of yesterday's better than expected US trade figures, equities then slumped as yields in the Treasury market surged to their highest levels for nearly a year, writes Janet Bush in New York.

At 3pm, the Dow Jones Industrial Average was quoted 14.64 points lower at 2,751.13 on moderately active volume of 85m shares. On Tuesday, the Dow had recovered from a morning loss of more than 20 points to end 2.71 points higher at 2,765.77.

Other major indices were sharply lower at mid-session. The Nasdaq Composite index of over-the-counter stocks was quoted 2.49 points lower at 432.93.

The trade figures should have been encouraging for the equity market. The deficit in February was \$6.45bn, the lowest it has been since December 1983, compared with a revised \$9.32bn shortfall in January. Estimates for the February trade balance had been for a deficit of near \$7.5bn. Some economists predicted that the improvement in the trade balance could add more than 1 per cent to first quarter GNP, leaving economic growth in the first three months at more than 2.5 per cent.

There was some modest buy-

ing of stocks at the opening but this was short-lived and equities started to fall as the Treasury bond market fell sharply. At mid-session, the benchmark long bond was quoted more than a full point lower to yield 8.81 per cent, its highest level in nearly a year.

Another unhelpful factor was that the dollar dropped after the trade figures to be quoted at Y158.80 at mid-session compared with a high of Y160.15 earlier. The reason for the dollar's drop was that it had risen sharply overnight on rumours that the deficit in February would be only \$4bn.

Rising yields in the bond market in the wake of Tuesday's news of a substantial rise in consumer prices last month led the markets to believe that the US Federal Reserve has little scope to further ease monetary policy. It is already known that there is a strong body of opinion within the Federal Open Market Committee in favour of tightening. Most of the economic evidence released recently points to inflationary pressures and fairly robust economic activity, even in the manufacturing sector.

Quarterly earnings reports continued to flood the market yesterday. Tandem Computers rose 4% to \$23 1/2 on a 39 per cent rise in its net income in the first quarter compared with a year earlier. Phelps Dodge added 3% to \$82 1/2. Its

net income of \$3.20 a share in the first quarter was below the year-ago level but exceeded analysts' expectations. Polaroid fell 1% to \$43 1/2 after the company reported a disappointing 23 per cent rise in its first quarter earnings and scaled back its estimates for earnings this year. Merck gained 4% to \$74 1/2 on higher than anticipated earnings but Coca-Cola dropped 4% to \$79 1/2 after it reported its first quarter results. Great American Bank fell 4% to \$3 1/2. The bank needs to raise \$50m in new capital by the end of the year because its auditor requires higher loan loss reserves.

## Canada

TORONTO stocks fell to the day's lowest levels at mid-session on Wall Street's fall after US February trade figures indicated the US economy was stronger than expected. The composite index slid 26.4 to 3,486.9 on volume of 14.56m shares. Declines led advances 284 to 195.

Nova Corp lost 3 1/2% to C\$7 1/2 on volume of 1.82m shares after reporting on Tuesday that its first quarter earnings fell to 11 cents a share from 49 cents a year earlier. Bombardier's Class B shares gained 3 1/2% to C\$15 1/2 after the company said holders of Class B shares had a right to a priority dividend of 2.5 cents.

# Singapore limps into the second quarter

Joyce Quek examines a dramatic decline in stock market volume in just four months

THE SINGAPORE stock market limped into the second quarter of this year. Against its 200m-share daily volume in early January, when the Singapore and Malaysian bourses split, trading has trickled down to what one analyst terms "pre-Clob days", referring to the computerised trading system which tripled volume when adopted last year.

Average daily volume during the week before Easter fell to 59.9m shares, against 72.9m shares a week earlier. Last Monday recorded the year's lowest daily volume and, for the first time, fell lower than Kuala Lumpur's 27.1m. Yesterday share prices closed mixed in another session of light trading. The Straits Times Industrial Index closed 7.48 higher at 1,534.11 but weaker Malaysian counters led the United Overseas Bank's OTC Index 4.31 lower at 904.16.

Most institutions were cautious, awaiting the release of the US February trade data. The combined main board and

OTC market had 95 gains against 106 losses with volume rising to 34.2m shares against 32.2m shares on Tuesday. Activity was focused on the property stocks, DBS Land and Singapore Land, and Malaysian

Straits Times Industrial Index hit an all-time high of 1,607.12, and the corporate finance business has been having a heyday. So far this month, four companies have announced their intention to obtain a public

est takeover bid, by United Industrial Corporation for Singapore Land - a rarity in that it is a hostile approach - a friendly takeover by Japan's Sumitomo of Cerebos Pacific, and several powerful Indonesian groups chasing Singapore targets. Some companies, and their advisers, clearly thought that the going was good.

"The market does get a bit schizophrenic," observes Ms Tan Poh-Hong, an assistant director of Prudential Asia Fund Management. On the one hand, fund managers, having sold some of their holdings at high levels, were sitting on fairly comfortable cash positions; on the other, comfortable with their profits, they were selling more.

Ms Tan says that there has been no panic selling. The current pattern is one of selective buying alternating with profit-taking.

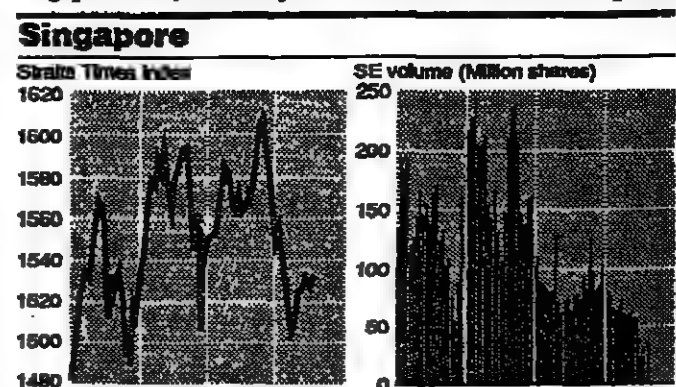
The Singapore market, like many regional bourses, is affected by the gyrations in Tokyo. Closer to home, there is concern over missing and

forged share scrip in Malaysia; and forced selling of Malaysian counters traded on Clob International, the exchange's over-the-counter market, following rumours of problems among Malaysian broking houses.

Just as the year had started well for the Singapore exchange on good corporate and economic fundamentals, the rest of the first half is expected to be sluggish, say analysts. However, although 1989's 43 per cent growth in share prices may not be repeated this year, there could still be opportunities to make money in the second half.

"Our fundamentals are still very strong," says one market observer. "Companies could show 25-30 per cent growth in their profits this year."

Areas with big upward potential include construction companies, which are cyclical; shipyards, which will continue to show decent growth; and hotel and property companies, with room rates and rentals going up.



speculative issues such as Renong and Kamming. Singapore Land ended the day at UIC's offer price of \$515. This is a strange hiatus. As recently as March 27, the

listing, two more have announced share apportionments following public offers, and another three have actually been listed. The region has seen its large

## ASIA PACIFIC

# Nikkei sharply higher despite yen weakness

## Tokyo

INVESTORS brushed aside Tuesday's gloomy mood, and selective buying took share prices sharply higher yesterday, writes Michiko Nakamoto in Tokyo.

The Nikkei average gained 787.46 points to end at 23,249.06, just below the day's high of 23,250. It showed remarkable resilience in the face of further weakness in the yen, which fell to an intraday low of Y160.18 against the dollar. It also took a more sanguine view of Tuesday's discouraging news from the electronics sector on Tuesday and the high money supply data for March.

The leading index opened at 23,026.51, the low for the day and progressed higher. Advances led declines by 689 to 234 with 163 unchanged. Volume, at 488m shares, was single-digit but better than Tuesday's 424m. The Topix index of all listed stocks posted a firm gain of 39.39 to 2,167.96 and, in London, the ISE/Nikkei 50 index rose 11.31 to 1,707.17.

Bargain-hunting for blue chips, and professional buying in arbitrage with futures pushed share prices higher. "Prices have fallen to such low levels that they are attractive enough to encourage buying despite the weak yen," said Mr Mitsuru Maekawa at Jardine Fleming.

A consensus was forming that share prices had reached their lows for now and would recover in the near term. Nevertheless, it would be a slow and extended climb back, even to the 30,000 level. "It is doubtful that there will be a sudden rebound to 30,000," said Mr Maekawa.

The bulk of buying came from trust banks, pension funds and securities houses, which were concerned about the fall in the value of their holdings, one analyst said. Another fear among institutions was that a further fall in share prices could trigger a major financial depression and burst the entire asset bubble, including real estate prices.

## SOUTH AFRICA

JOHANNESBURG was barely changed in this trading. President FW de Klerk's speech to parliament on Tuesday, rejecting black majority rule in favour of power-sharing, had little impact. The JSE all-share index eased 3 to 3,106.

which has helped Japanese companies to raise cheap funds and enhance their global competitiveness.

Buying interest centred on heavy industries and steels, with Mitsui Engineering and Shipbuilding topping the active list in 29.5m shares. It gained Y40 to Y885. Nippon Steel followed with 28.1m shares and rose Y11 to Y591.

Investors chose to forge their nervousness on Tuesday when a major newspaper reported that the profits of major electronics makers were likely to decline due to a soft semiconductor market. Electronics makers came back into favour on the continued rise of the dollar, since they are major exporters and should benefit from a weak yen.

Hitachi was in demand on optimism for its new 4 megabit D-Ram memory chips, said one analyst. Hitachi closed Y40 higher at Y1,600. Sony gained Y120 to Y8,400 and TDK, the maker of magnetic tapes, surged Y40 to Y6,840.

In Osaka, a rise in electronics and constructions led the

OSE average up by 332.85 to 31,068.14. Turnover rose from 33.1m to 42.6m.

## Roundup

TOKYO'S recovery failed to revive spirits in the Pacific Rim, where most markets were more concerned with domestic matters.

HONG KONG ended higher for the fourth session in a row, on heavy buying of blue chips by UK institutions in the afternoon. The Hang Seng index jumped 31.91 to 8,052.35, its highest level in more than 10 months. Turnover rose from HK\$1.53bn to HK\$1.55bn.

Utilities showed the largest advances followed by commercial, industrial and property issues. Stocks about to pay final cash dividends were also in demand.

TAIWAN failed to take heart from a cut in local interest rates and declined for the fifth consecutive session. The weighted index fell 297.21 or 3.2 per cent, to 8,944.40, closing below the 9,000 support level for the first time since Decem-

ber 25, 1989. Turnover eased to 1.01bn shares valued at NT\$79.96bn from Tuesday's 1.05bn shares worth NT\$81.55bn.

SEOUL rose sharply in the morning, the composite index rising above the important 800 level. But it was hit by last-minute selling, sparked by rumours of bankruptcies and worries that the market was about to go into free fall. It closed 15.09 lower at 781.53.

Dealers said the gloom centred on liquidity problems of institutional investors. For example, three local investment trusts which purchased large amounts of stock late last year were said to face huge interest payments to banks.

NEW ZEALAND was dragged down by falls in leading stocks, and the Barclays index fell 13.13 to 1,716.87.

Investors were concerned about the earnings of Goodman Fielder Wattie, Australasia's biggest food-processing group, and the stock fell 7 cents to NZ\$1.88 on second highest turnover of 540,000 shares. Fletcher Challenge was also

hit, dropping 6 cents to NZ\$4.30. But Elders Resources, which has been under pressure in recent weeks, rose 2 cents to NZ\$1.57.

Brierley Investments accounted for over half of the daily turnover in 4.6m shares, and closed 1 cent lower at NZ\$1.58. News that New Zealand's consumer price index rose 0.5 per cent in the quarter ended March 31 was in line with market expectations.

MANILA posted the listing of Bulletin Publishing, the country's oldest and largest newspaper group, which closed at 20.25 pesos, up 0.25 peso from its offering price. The composite index eased 2.25 to 1,044.52.

AUSTRALIA saw volumes boosted by the exercise of options, notably into CRA and Elders IXL. Turnover rose to 96m shares valued at A\$174m from 86m shares valued at A\$144m. The All Ordinaries index bounced back above the 1,500 support level to close 2.0 higher at 1,501.4. Weak international oil prices put downward pressure on some stocks.

## EUROPE

# Frankfurt and Paris bow to Stockholm and Madrid

CAUTION was the order of the day in senior bourses, with profit-taking in France and nervousness in West Germany, but the healthy gains in Sweden and Spain suggest that some investment money is still looking for a home, writes Our Markets Staff.

PARIS entered its second day of profit-taking before the end of the monthly account on Friday. The market was also clouded by Thomson CSF's 11 per cent drop in 1989 profits. The stock fell FF5.20 or 3.49 per cent to FF144. Peugeot fell FF31 to FF787 before announcing a 16 per cent rise in attributable net profit to FF10.50bn after the market closed. The figure was broadly in line with analysts' expectations though some optimists had been going for FF11bn.

In smaller stocks, Radiotelephone, the electronics and high-definition television company, jumped FF23 or 3 1/2 per cent to FF710 on speculation that the Dutch group Philips, which already owns 52 per cent of the company, might seek to buy in the outstanding shares. The CAC 40 index came off a high of 2,138.90 at the opening to close 27.66 lower at 2,088.68. Turnover was estimated at around Tuesday's FF 2.5bn.

FRANKFURT fell on general and specific fears, the general covering German monetary union and tension in Lithuania, and the specific treating with economic reforms in Brazil and their effects on German companies. After a 7.17 fall to 822.56 in the FAZ index at mid-session, the DAX closed 24.63, or 1.3 per cent lower at 1,889.76.

Volume rose from DM5.9bn to DM6bn and, within that, Mannesmann topped the most active lists in turnover of DM833m. The engineering group, which has Brazilian interests, fell DM17.50 (4.5 per cent) to DM369 on a UK bro-

ker's sell recommendation: the Brazilian government's radical anti-inflation policies are said to be strangling the industrial sector of the country's economy.

The big international blue chips fell with the market. In motors, BMW and Volkswagen dropped by more, shedding DM11.50 to 974.50 and DM10.50 to DM579.20. VW is a partner in the Brazilian-Argentine Automotiva joint venture with Ford Motor. A small bright light in the sector was Porsche, which made another new high at DM1.165, up DM5.

AMSTERDAM was initially depressed by Frankfurt's weakness but picked up later in the day. Transport group Nedlloyd was hit by professional profit-taking, and stock closed 70 cents lower at F107.10. It then reported a rise in 1989 net profit to F125.3m from F153.6m and raised its dividend from F13.00, adjusted for a share split, to F13.30, after the market closed.

The lower dollar depressed international stocks, and interest continued to centre on domestic stocks in sectors such as publishing, and office equipment. Wolters Kluwer, which said it had sold five of its printing units to OOH Group as part of its strategy to focus on its core activities, rose F13.20 to F154.30.

Philips, under pressure recently, edged up 30 cents to F40.90. The chemical group DSM, which said its operating profit so far this year was growing at a similar pace to that in the second half of 1989, rose F12.30 to F126.40. The CBS television index ended 1.1 higher at 120.2 and turnover was relatively heavy at F1.912m, well above recent levels of around F1.500m.

MILAN ended mixed in lively trading as some profit-taking set in after two days of

strong gains. The Comit index lost a marginal 0.06 to 713.01. Fiat rose L67 to close at L10.815 but fell back to L10.760 in the after-market. Generali, which has been well bid in recent sessions, added L400 to L41,200 but it too slipped in the after-market, to L40,800.

In the chemical sector, Solvay settled at L1.485, down L4, while Montedison managed to climb above the L2,000 level and close at L2,009, up L10. Mr Carlo de Benedetti's CIR holding company fell L10 to L5,360 in spite of local news reports, yet to be confirmed, that Mr de Benedetti might soon sell his 15.4 per cent stake in Societe Generale de Belgique.

STOCKHOLM was led higher by Ericsson on further signs that it was successfully penetrating the lucrative US telecommunications market. The removal of a turnover tax penalising own-account trading also helped sentiment. Ericsson's free B shares rose SEK28 to SEK513. The insurance company, Skandia, rose SEK8 to SEK175 after reporting 1989 profits 80 per cent higher at SEK1.7bn. The Affarsvarlden general index rose 6.6 to 1,153.5.

MADRID registered its strongest close of the year to the open outcry session, on continuing demand for construction stocks. The general index rose 7.56, or 2.8 per cent, to 277.47. Dealers said that a consensus was growing that this week's gains were more than just a technical correction.

BRUSSELS was pressured by profit-taking in Societe Generale de Belgique and Solvay, and the cash market index fell 19.49 to 612.64. Volume was light at BF634m.

SGE lost BF45 to BF3,350, and Solvay BF175 to BF13,650, on profit-taking following mildly disappointing earnings reports on Tuesday.

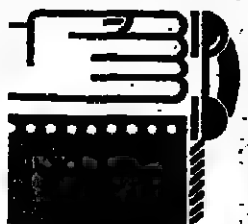
## FT-ACTUARIES WORLD INDICES

Jointly compiled by The Financial Times Limited, Goldman, Sachs & Co., and County NatWest/Wood Mackenzie in conjunction with the Institute of Actuaries and the Faculty of Actuaries

NATIONAL AND REGIONAL MARKETS	TUESDAY APRIL 17 1990					MONDAY APRIL 16 1990					DOLLAR INDEX		
	US Dollar Index	Day's Change %	Pound Sterling Index	Local Currency Index	Day's % local currency	Gross Div. Yield	US Dollar Index	Pound Sterling Index	Local Currency Index	1990 High	1990 Low	Year ago (approx)	
Figures in parentheses show number of stocks per grouping													
Australia (81)	134.28	+0.0	121.80	116.73	+0.0	5.93	134.26	122.02	118.73	158.31	133.36	128.67	
Austria (19)	280.25	+0.8	254.21	244.45	+1.2	1.09	278.08	252.70	241.53	283.83	183.15	154.54	
Belgium (61)	148.52	-0.3	134.71	127.27	+0.1	1.09	148.98	138.38	127.12	160.02	132.11	135.94	
Canada (120)	136.41	+0.3	123.79	115.43	-0.1	3.48	138.18	125.58	116.73	153.51	135.47	135.61	
Denmark (36)	249.21	+0.1	226.05	217.01	+0.0	1.42	249.93	228.22	217.10	260.82	236.66	177.70	
Finland (26)	135.87	+0.1	123.24	113.72	+0.2	2.41	136.70	123.37	113.44	152.29	130.39	159.16	
France (129)	186.43	+0.6	150.96	147.18	+0.6	2.68	186.38	150.29	148.29	189.43	141.66	122.43	
West Germany (94)	135.25	-0.3	122.66	119.02	+0.6	1.83	134.79	122.49	117.52	137.71	122.05	88.86	
Hong Kong (48)	194.87	+0.1	113.26	124.56	+0.8	4.88	123.60	112.40	112.40	124.57	112.24	132.70	
Ireland (17)	188.60	-0.2	171.07	165.61	+0.1	2.58	189.03	171.78	168.42	198.57	161.49	151.28	
Italy (96)	103.12	+1.6	93.53	90.84	+1.6	2.43	101.50	92.23	93.44	103.12	91.85	83.82	
Japan (454)	217.02	+0.4	117.42	130.91	+0.0	0.63	216.99	118.12	130.89	197.26	124.40	190.03	
Malaysia (35)	217.02	+0.1	196.65	196.42	+2.9	3.26	217.23	197.49	245.32	196.85	174.82	174.82	
Mexico (13)	411.54	+2.2	373.28	1253.34	+2.0	0.41	402.65	365.50	1223.14	411.54	324.33	173.50	
Netherlands (43)	140.84	+0.8	127.75	121.36	+0.7	4.85	139.88	126.93	120.46	145.66	130.43	122.03	
New Zealand (17)	62.12	-0.3	66.36	59.55	+0.1	7.68	62.28	56.92	57.12	75.36	60.31	66.98	
Norway (25)	220.05	+0.2	204.19	199.95	+0.7	2.07	220.41	202.79	245.90	202.32	195.16	195.16	
Singapore (26)	189.99	+0.1	172.33	164.42	+0.3	1.83	189.73	172.41	163.98	198.38	176.70	155.59	
South Africa (60)	183.30	+0.3	166.27	159.95	-0.5	3.70	183.92	167.13	160.80	251.39	160.67	135.51	
Spain (42)	149.02	+1.4	135.17	120.40	+1.4	4.41	147.00	133.59	118.77	165.19	132.84	155.31	
Sweden (35)	131.36	+0.8	154.48	164.17	+1.9	2.40	174.95	163.53	162.70	206.95	173.08	155.74	
Switzerland (89)	91.48	-0.1	82.98	82.98	+0.1	2.32	91.87	84.36	83.21	94.96	88.75	77.73	
United Kingdom (306)	146.90	+0.1	133.25	133.25	-0.3	4.96	147.06	133.64	133.64	164.31	144.58	145.08	
USA (537)	134.41	+0.0	126.45	136.41	+0.0	3.44	134.43	126.70	139.43	145.40	130.61	124.48	
Europe (990)	141.48	+0.3	128.33	125.26	+0.3	3.53	141.02	128.14	124.84	148.68	135.57	121.70	
Nordic (122)	187.71	+0.4	170.26	160.28	+0.5	1.94	188.94	169.88	159.54	201.89	165.01	154.54	
Pacific Basin (861)	129.44	-0.4	117.41	129.93	+0.0	0.58	129.50	118.05	129.75	192.75	124.63	186.18	
Europe - Pacific (615)	134.66	+0.1	122.14	119.61	+0.7	1.07	134.75	122.45	123.78	174.18	130.36	159.78	
North America (857)	139.13	+0.1	128.20	137.83	-0.1	3.44	139.26	128.54	137.13	145.78	131.02	125.07	
Europe Ex. UK (884)	136.18	+0.6	123.52	119.82	+0.6	2.69	135.38	123.02	119.09	136.18	124.81	105.19	
Pacific Ex. Japan (207)	128.62	+0.3	118.67	116.44	+0.3	3.19	128.24	116.08	123.59	138.32	127.77	228.34	
World Ex. US (1844)	135.35	-0.1	122.77	120.07	+0.1	2.15	135.50	123.13	129.68	173.77	131.30	158.71	
World Ex. UK (201)	134.20	+0.1	124.82	124.70	+0.1	1.84	134.70	124.41	124.41	162.03	131.30	158.71	
World Ex. So. Af. (2321)	135.40	-0.1	122.82	132.19	+0.0	2.58	135.50	123.13	132.14	161.84	181.95	144.48	
World Ex. Japan (1927)	140.31	+0.1	127.27	133.19	+0.1	3.55	140.18	127.39	133.10	145.52	136.25	124.02	
The World Index (2381)	135.69	-0.1	123.08	132.39	+0.0	2.60	135.79	123.40	132.05	162.25	135.23	145.36	



# FINANCIAL TIMES SURVEY



The liberalisation of the world's telecoms markets is gathering pace, spawning the introduction of new

services and technologies. But the absence of competition on international routes means phone users are still being charged excessively. Hugo Dixon reports

## Freeing the markets

THE demonopolisation of telephone networks started by Judge Harold Greener in the US in the 1980s is likely to become a global phenomenon in the 1990s.

Governments across the world are slowly realising the vital role that information flows play in the modern economy. Access to cheap, flexible and varied communications facilities can make the difference between an industrial laggard and an industrial star.

The UK and Japan were the first to follow the US in freeing their phone markets in the mid-1980s. In the past year, West Germany, which used to be considered one of the most reactionary forces in global telecommunications, has embarked on a substantial reform of the Bundespost monopoly, although this falls short of privatising the Bundespost and does not allow competitors in voice telephony.

And even France is considering reforms which will put France Telecom on a more commercial footing and allow competitors in certain limited areas such as value-added services and data communications.

As part of its campaign for a single European market, the European Commission has successfully pressed for a limited demonopolisation of the telecommunications industry. The terminal equipment market has already been freed and the data communications market is

being liberalised in stages over the next few years. A policy paper on satellite communications is being prepared and should be unveiled sometime during the summer.

And the UK will embark on a review of telecommunication policy in November which is expected to lead to a second dose of liberalisation.

The New Zealand Government has also embarked on radical plans to demonopolise its telecommunications industry, involving the privatisation of New Zealand Telecom.

Meanwhile, the third world debt crisis has forced several Latin American governments to relinquish control over their telecommunications sectors. One of Chile's telephone operators has already been privatised and the governments of Mexico and Argentina are planning to sell stakes in their telephone monopolies to foreigners.

The revolutions in eastern Europe have thrown up another constituency in favour of applying free market ideas to telecommunications. Under the old communist regimes, the telecommunications infrastructures were severely neglected, partly through a failure to appreciate the value of communications and partly through a perception that a free flow of information could undermine their totalitarian rule.

The new governments in Poland and Hungary are planning sweeping

reforms of their telecommunications sectors. This is because they feel they will be able to drag the state of their telephone system up to a more normal European level faster if they employ private enterprise than if they rely on their telephone monopolies.

The Soviet Union is also gearing itself up to modernise its telecommunications networks. If glasnost and perestroika, the Soviet Union's political and economic reforms, are to amount to much, they will have to be backed up with a better communications infrastructure. However, so far, the Soviet government has not bitten the bullet of demonopolisation in the telecommunications sector.

The deregulation of phone markets has already led to a partial globalisation of the industry. Network operators in countries where the markets have already been deregulated, principally AT&T and the Baby Bells in the US, British Telecom and Spain's Telefonos, have started to spread their wings and expand overseas.

This diversification has been prompted partly by a feeling that their opportunities for growth at home were limited by a desire on the part of regulators to reduce their market shares. It has also been prompted by a perception that international markets were full of opportunities.

The initial experience of this globalisation was rather disappointing. AT&T's deals with Phillips of the Netherlands and Olivetti of Italy have been gradually unwound as the US company realised that they were not delivering industrial synergies. Similarly, BT is looking for a purchaser of its stake in Mitel, the Canadian equipment manufacturer which it bought in the mid-1980s.

Although these initial forays were unsuccessful there is now evidence of a more discriminating approach by the phone companies. Their current focus is on building global data communications networks and acquiring mobile communications franchises.

Both these areas are ones in which network operators can be expected to have some relevant experience. Even in those countries which have not embarked on radical demonopolisation plans, it is becoming common to liberalise the markets for data and mobile communications which are its fastest growing sectors.

The proliferation of new telecommunications services is continuing apace, particularly in those countries which have liberalised their markets. The dramatic growth of cellular communications in Scandinavia, the UK and the US and now elsewhere in the world, is the most prominent example of this.

An important new initiative was

taken in mobile communications last year by the UK government when it licensed three new operators to provide a service called Personal Communications Networks, effectively a high-frequency mass market version of cellular communications.

Value-added services such as electronic mail, electronic data interchange and the remote access to data banks are growing rapidly. And in the US and the UK, corporations are increasingly turning to private networks to satisfy their specialist communications needs.

The US has seen phenomenal growth of freephone services. Almost every advertisement in a newspaper or on television carries with it a 1-800 freephone number. As well as generating billions of dollars of revenue for the phone companies, freephone services have changed the structure of retailing and marketing in the US. It is no longer necessary for an organisation to have large physical branch networks across the country.

The development of intelligent networks is likely to see the launch of a whole new raft of sophisticated network features over the next five years. The US is the most advanced in the implementation of the "intelligent network" concept.

Apart from advanced freephone services, the most important intelligent network features are virtual private networks - which will give

corporate customers the feeling that they have their own private network even though they are using the public infrastructure - and a series of sophisticated call diversion facilities.

Although much of the world is now benefitting from demonopolisation in telecommunications markets, the one area which has stubbornly remained entangled by cartel practices is international telephony.

Governments and watchdogs have focused their attention on liberalising their domestic phone markets, but so far given little attention to freeing the market for providing international phone services. This is partly due to a calculation that the vast monopoly rents being earned out of international phone calls can be used to subsidise local calls.

The effect of the international phone cartel is that telephone users around the world are being overcharged more than £10bn a year on international phone calls. This, however, is only the tip of the iceberg. The real damage caused by the cartel is that it restricts the flow of information across frontiers and so hampers world trade and the globalisation of industry.

The world's telephone watchdogs are slowly taking an interest of the activities of the international phone cartel. However, to date, there has been no decisive action.



Cable & Wireless satellite dish, Hong Kong island: governments are slowly realising the vital role that information flows play in the modern economy

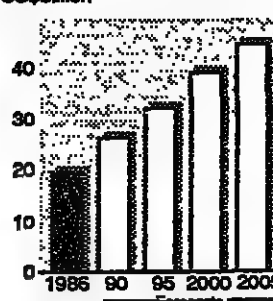
## INTERNATIONAL Telecommunications

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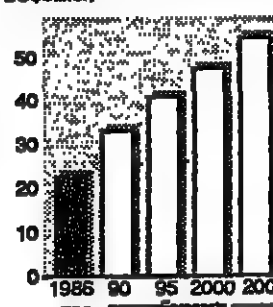
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Editorial Production: Khosro Merchant  
Graphics: Bob Hutcheon

### FORTHCOMING SURVEYS

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International Mobile Communications: October

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## INTERNATIONAL TELECOMMUNICATIONS 2

"IF YOU like being number two, you'll love America's Telecommunications policy," declares a recent advertisement by the US's seven Bell regional telephone companies.

The Bells, spun off from American Telephone and Telegraph (AT&T) six years ago, have united to fight for greater freedom for themselves and more coherence in US telecommunications policy. Advertisements and lobbying Congress are just two activities in their "Free-the-Bells" movement, for which they have set aside a total of \$31m.

The Bells are playing on the fear that US telecommunications are fast declining into a second-class industry because of chaotic and fragmented regulation and arbitrary curbs are discouraging investment. Support for the thesis is widespread. Mr Alfred Sikes, chairman of the Federal Communications Commission (FCC), the regulatory agency, told Congress last month that the consequence of present regulations might harm global competitiveness. One crucial step, he argued, was to allow the Bells to offer more services.

The Bells are chafing at the legal document which laid out the breakup of AT&T. As an anti-trust matter, it is overseen by the Federal courts in the person of Judge Harold Greene in Washington. His narrow interpretation is keeping the Bells out of areas such as information services, equipment manufacture and long-distance communications.

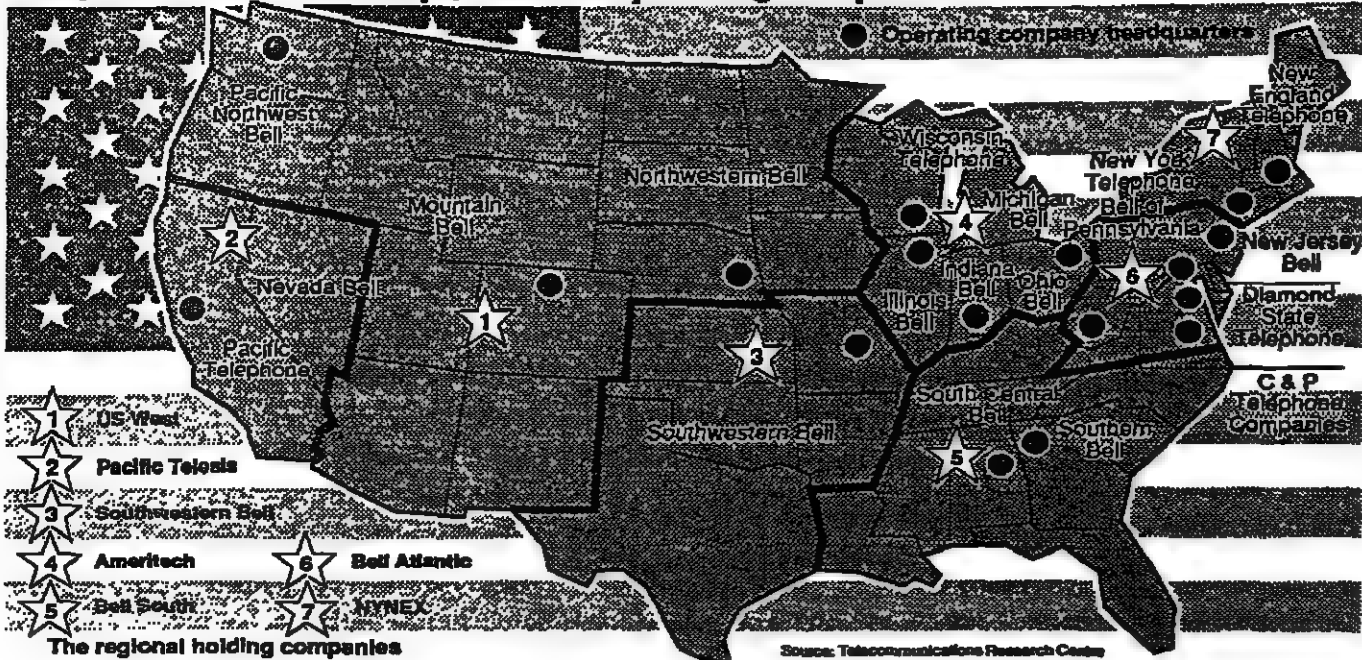
The upsurge of interest on Capitol Hill has been marked, and Congress is trying to wrest power back from the court. Some 10 bills are pending before the House and about seven before the Senate which would address various telecommunications issues and in most cases restore some powers to Congress and the FCC.

In addition to controls by the Federal Court and the FCC, telecommunications companies must also deal in most parts of the country with state regulatory commissions. Fortunately, some of the latter have been innovative with, for example, more than 20 introducing price caps or some other form of incentive regulation of phone companies.

But with regulation differing from state to state, 73 telecommunications companies face a hotch-pot of controls. Mr Sikes has called for a regulatory summit at the FCC to try to simplify the system.

One of the Bells' best hopes in Congress for regulatory relief is a draft bill before the

## After the AT &amp; T break-up : the Bell operating companies



## Roderick Oram watches telephone companies square up to court

## The Bells enter the ring fighting

House telecommunications and finance subcommittee chaired by Representative Edward Markey. It would allow the Bells to design and develop equipment without restrictions, although they would have to seek manufacturing permission from the FCC on a case-by-case basis.

They would also get the go-ahead to offer limited information services, in essence an electronic Yellow Pages. They would remain barred from long-distance services.

Opposition is widespread, particularly on information services with independent sup-

pliers fearing telephone companies will abuse their monopoly of local phone service.

Legislative action would work wonders, believe Mr James McCabe and Ms Joanne Smith, analysts at the Nomura Research Institute in New York. "US telecom services companies will accelerate the introduction of new technologies into their networks as soon as restraints are removed and they can participate meaningfully in the full range of information services," they wrote earlier this year.

The current paucity of investment is marked. US com-

panies put an average of only \$150 per local line per year into their networks, compared with some \$230 in Canada, Western Europe and Japan, according to calculations by Mr William Davidson of the University of Southern California.

Certainly the US companies are building on a stronger base than the others, but many analysts argue the US is already beginning to fall behind.

The Bells argue that one of the most crucial issues is the provision of fibre optic services to homes. Until they can offer such high capacity transmis-

sion, the public will be unable to get more complex services such as pay-per-view films.

To help justify the huge investment in fibre optics, the Bells say they need to do more than just collect a toll from those using the network. They themselves must be allowed to sell data services and cable television programmes.

The cable TV industry says the fibre optic issue is a red herring. Even if the Bells did muscle in on their territory they would still not earn enough to pay for fibre. Anyway, the cable companies say they are quite capable of offering such equipment and services themselves.

It is widely agreed the US would best be served by more competition in telecommunications, especially in areas such as long distance and cellular services. The FCC is seeking ways to encourage newcomers, particularly those with new technologies and ideas. Industry analysts say, however, that the overriding need is for greater co-operation and vision among the diverse controlling bodies in the US. They fear those attributes may be hard to come by in a country raised in a tradition of diffused political power.

## Bernard Simon on Canada's combatants

## Calm before the storm

THE OPENING shot in a far-reaching Canadian communications battle is due to be fired within the next few weeks when Toronto-based CNCP Telecommunications files an application with a regulatory agency in Ottawa to break Canada's long-distance telephone monopoly.

The ferocity of the struggle ahead is vividly captured in the Churchillian rhetoric used recently by Mr Ted Rogers, chairman of Rogers Communications, the Toronto cable-TV carrier which owns 40 per cent of CNCP. "We shall not flag or fail. We shall fight to the end, and repeat it if necessary," Mr Rogers told a business group in Montreal.

CNCP's quest, while specifically aimed at gaining a slice of the fast-growing long-distance telephone market, has wide implications for Canada's communications industry as a whole. Most important, the fate of its application will influence the use of the country's growing fibre-optic network, and the extent of future integration between telephone, data transmission and cable television services.

Public long-distance service is the preserve of Telecom Canada, a consortium of nine leading provincial utilities, as well as Telesat Canada, the national satellite communications agency. By far the most important player in Telecom Canada is Bell Canada, a subsidiary of Montreal-based conglomerate BCE Inc, which also controls equipment-maker Northern Telecom and a cellular telephone network.

Bell has a monopoly of local service in Ontario and Quebec and owns a substantial stake in four utilities in other parts of the country.

Since the Canadian Radio-Television and Telecommunications Commission (CRTC) turned down CNCP's first application four years ago to provide a competitive long-distance voice service, Bell has put much of its energies into preparing for the likelihood that the next bid to break the long-distance monopoly would be successful.

In particular, it has tried to redress some of the imbalance of lucrative long-distance business subsidising local service. On the one hand, Bell has raised the monthly fee for local service by 10 per cent since

1983. (The service fee is still a modest C\$15 a month in Toronto, with instruments for rent at a minimum of C\$2.50 a month.) It has generated extra revenue by promoting several "enhancements" (such as a beep to signal a waiting call, while one is on the telephone).

At the same time, Bell has sharpened its competitive edge by significantly bringing down long-distance rates. It announced another 15 per cent cut in cross-Canada charges in March, bringing the reduction in this type of call to 51 per cent since 1987. None the less, Bell estimates that its long-distance revenues still subsidise local service to the tune of about C\$2m a year.

Assuming the CRTC eventually approves CNCP's forthcoming application, Mr Erick Willis, a Toronto consultant on regulated industries, predicts that it will be three or four years before CNCP starts long-distance service. He notes that parliament must still pass contentious legislation affecting three provinces (Alberta, Manitoba and Saskatchewan) over which the CRTC has no jurisdiction.

CNCP's progress has become especially interesting since Rogers bought its 40 per cent stake last year from Canadian National, the state-owned railway company. The remaining 60 per cent is still held by Canadian Pacific, the Montreal transport, energy and industrial group.

Rogers is unashamedly foregoing profits and dividends to fund investments in its cable-TV and national cellular telephone network, already the largest in the country. It plans to spend C\$300m on its cellular business and C\$250m on cable in the current fiscal year. Rogers has 1.6m cable-TV subscribers while its cellular telephone subsidiary Rogers Cantel has signed up more than 200,000 subscribers, adding 6,000 new ones each month.

From their bases in cable TV and telephones respectively, Rogers and Bell are racing to dominate Canada's fast-growing fibre optic network. Rogers is building trunk fibre-optic networks in its two main cable-TV markets, Toronto and Vancouver. Bell has connected all its 600 switching centres with fibre and has the advantage of Telecom Canada's all-fibre cross-country network.

CNCP's long-distance system is partly fibre and partly digitised microwave.

A single fibre channel carrying telephone and cable-TV signals into homes is still some way off. But fibre is creeping closer to individual households. For instance, Bell has already used fibre optics to link several Hydro-Quebec and Quebec government office buildings to its central switches and to each other.

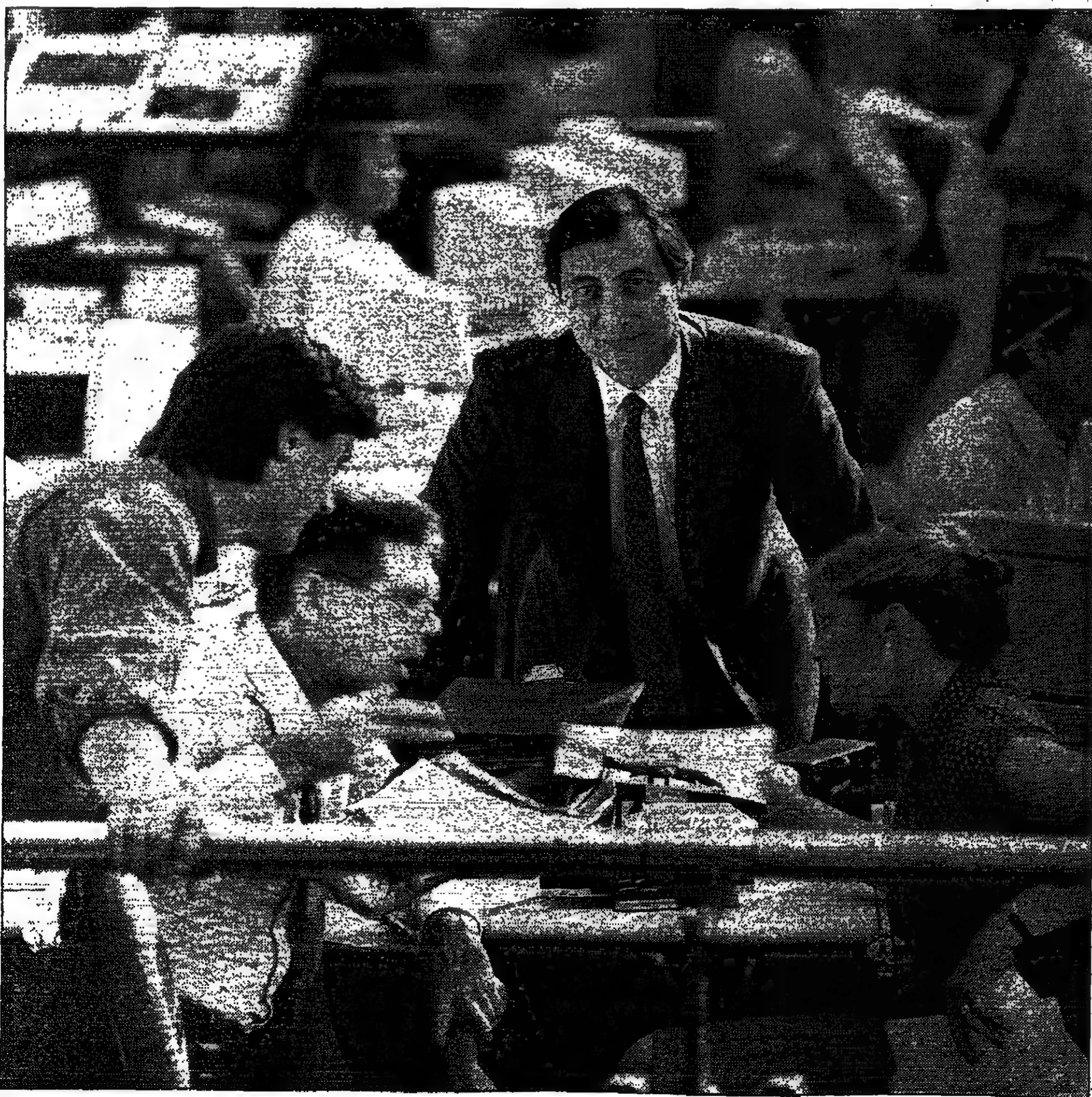
Wiring every home and business in Canada with fibre optics would cost an estimated C\$95bn. Bell, which has installed 180,000km of fibre cable since 1985, will spend C\$830m on fibre-optics over the next five years, but would prefer some form of co-operation with the cable-TV industry.

The cable industry worries that relying on someone else's cable - especially if that someone is as powerful as Bell Canada - would leave it vulnerable to an ever-greater share of profits going to the carrier rather than the broadcaster. Mr Barry Gage, president of Maclean Hunter Cable TV, a large Toronto-based company, asserts that "you have to own your facilities or you don't have control over what changes you can make or what services you can put on that cable."

Mr Gage points out that North American telephone subscribers these days make less use of the cable coming into their homes than TV watchers do. "If Bell needs this little bit of spectrum, why should they not rent it from us?" he asks.

With such considerations in mind, Rogers is pressing ahead with the installation of its fibre-optic network. It and when fibre optics penetrates the home, Rogers will thus have the freedom to expand not only into high-definition television, but also local telephone service. Mr Rogers has warned shareholders not to expect any dividends before 1992 as it presses ahead with its heavy investments.

Bell is stalling for a face-to-face confrontation with Rogers as the latter expands its telephone interests. "Once they have the right to get into their business, we'll want to get into theirs to undermine their base," Mr Monty says. "It is to be hoped we will be able to undermine theirs more than they undermine ours."

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## INTERNATIONAL TELECOMMUNICATIONS 3

The EC's new programme for reform is already looking doubtful

## A definite Article of dissent

AS THE 1980s came to a close, a new liberal era in European telecommunications seemed about to begin. In the last month of 1989 ministers seemed to have agreed on two important directives: the first was to open up the market in telecom services, and the second to agree technical rules for free access to networks.

With the passage of those two directives, the bulk of the measures laid out by the Commission in its 1987 White Paper on the liberalisation of the telecommunications market have been adopted, leaving a handful of more detailed ones to be approved. The focus for change would then move to satellite.

However, just a few months later the programme for reform is looking more doubtful. The compromise reached in December was seen as a considerable achievement as it bridges a gap between the opposing attitudes of member states. On one side, France, Belgium, Italy and Greece, all of whom are reticent when it comes to free competition in telecoms. On the other are West Germany, the UK and Holland, which have already liberalised their own markets to varying degrees and are anxious to see liberal measures introduced in Europe.

The services directive was only agreed under the threat that if member states did not accept it, the Commission would force it through anyway, using Article 90 of the Treaty of Rome. That article allows the commission to intervene directly to prevent monopolies from acting against the Community interest.

The Commission's powers to take such a radical step using this obscure article are questionable, and are being challenged in the European Court of Justice. France and several other member states took the

Commission to court last year for its use of Article 90 in passing a similar directive on telecom equipment.

An initial opinion delivered by one of the Advocates General in February was sympathetic to the member states' objection, and if the court decides the Commission has acted illegally, the latest package of measures could begin to look fragile.

On telecoms equipment the effect of removing the legal basis for the directive might not have much impact, as the measures are already in place, but on services it could be a severe blow. If it goes through as planned, the services directive will introduce competition into all areas except simple voice telephony, starting this summer.

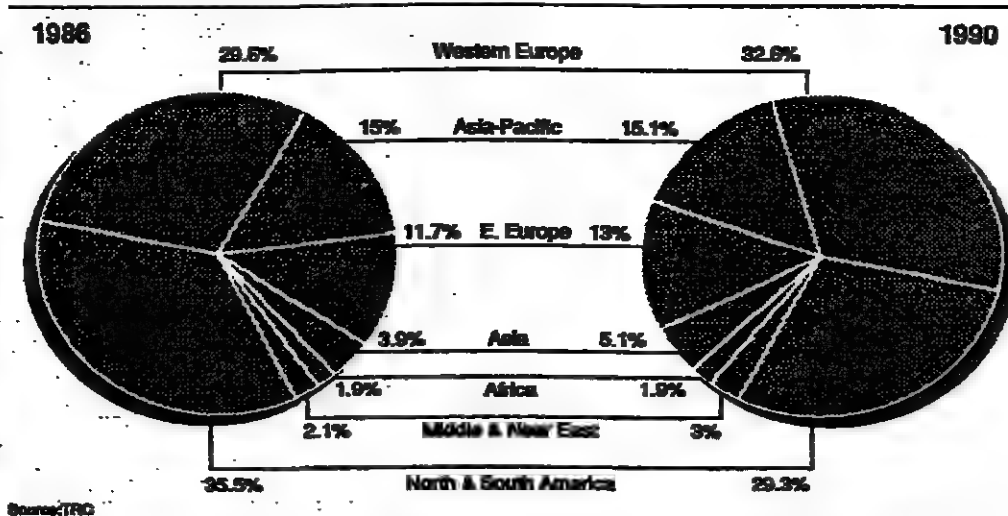
Even though voice accounts for about 90 per cent of telephone companies' business, it is the remaining areas that are the most profitable, and which are growing most quickly. It is seen as one of the most important parts of the entire Single Market plan: telecommunications now account for 3 per cent of Europe's GNP, but is growing so fast that it is expected to reach 7 per cent by 2000. The telephone network itself will not be touched; it will remain up to individual countries to decide how much competition - if any - they want.

The directive will mean that private companies will be able to offer value-added services in competition with monopolies in the EC. These include services like electronic mail, teleshopping and videotext. The market will be opened up in stages, with PTT monopolies given until the end of 1992 before being forced to give up their control over all basic data communications.

PTTs will also have to publish all the technical details needed to give other companies access to their networks, and will also see their powers as regulators stripped from them. The second directive, the Open Network Provision, is aimed at harmonising rather than liberalising the market, and to some extent plays into the hands of the big monopolies. Indeed the directive has proved contentious between member states, and has been championed by the less liberal countries as a way of keeping competition out. As the directive is only a framework directive - which means it lays down the general principles but does not apply them to specific cases - there will be plenty of arguing between member states as the individual directives come forward for approval later this year.

The first should be the least controversial. It involves setting standards of access to

Telecommunications equipment expenditure



Source: TRC

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The first should be the least controversial. It involves setting standards of access to

leased lines - something most favour. When it comes to agreeing rules on packet switching and on value added services, all the old disagreements are likely to resurface.

The UK will argue that there is no need to impose firm standards - to do so would force up costs for small competitors.

Beyond the ONP and services directives, the only measure on the table is on the testing of telecoms terminals. Although this seems a largely technical measure, it is important in preventing countries putting barriers in the way of equipment made in other member states. The new directive says that if standard equipment has been tested in one member state, its manufacturers can sell it wherever they like in the Community without submitting it to further tests.

By eliminating the red tape, it is hoped that consumers will shortly have more choice and

that the market gradually will become more competitive.

Overall, the aim is to wipe out the inefficiencies that come from running 12 distinct telecommunications markets, and to make Europe more competitive against the US and Japan.

Perhaps the most important EC measures recently adopted bypassed the telecoms ministers altogether, and came as part of a general package for opening up the market in public procurement.

Starting from 1992, telecoms will be included in the Commission's strict new procurement rules for the first time, so that when, for example, the Munich town council wants to install a new telephone system, its order will not automatically become business for Siemens and the Bundespost - companies in the other 11 countries should get a look in too.

Lucy Kellaway

## UNITED KINGDOM

## All eyes on the duopoly review

City (of London) they do."

Many companies are unsure how far the Government can go without new legislation. Can it licence a third - or fourth - telephone company to compete with British Telecom, for example?

Mr Michael Davis believes it can. He is executive chairman of a newly-formed company called National Network, which has been set up to sell spare capacity on the Post Office's private communications network. His is the first company in the UK to introduce such a service - known in the US as "resale". And, Mr Davis says his company "would like to be considered for PTO status".

Many believe more likely will be a nibbling away at the edges of today's regulatory framework to ensure that the domestic subscriber gets a choice of services. Some argue that the mobile telephone companies - providing cellular radio, telepoint and, in future, personal communications networks - will provide that competition once they become established.

Others are looking to cable television operators and are particularly keen to see the abolition of the rule which says cable television companies can only offer telephone services in conjunction with either BT or Mercury. BT, on the other hand, is keen to be allowed to offer cable television services in its own right.

"I think it is almost inevitable that the duopoly review will result in BT and Mercury being allowed to carry television, and for the cable TV companies to carry voice," predicts Mr Ian Mackintosh, chairman and managing director of

Mackintosh Generics.

As an advocate of wiring up the country with broadband cable in order to provide a myriad of services through one cable, he says that the review could be the time to ensure that the framework for this is put into place. "It is economically and technically feasible. The question is whether it is politically feasible."

Another option is to insist on "equal access", a service already enjoyed by phone users in Hull, in northern England. There, customers who want to make long distance calls must specify whether they want the call to travel on BT or Mercury lines, on a call by call basis, or by specifying their chosen company in advance.

Equal access is an option which would heavily favour Mercury because it would give all BT's local subscribers the choice of discarding BT once they reached the local digital telephone exchange.

Wild speculation points to the carving up of BT along the lines of the electricity industry privatisation, with one trunk and international call supplier and several smaller local operators. But as the Government only owns 49 per cent of the company that could only be done with BT's approval.

And Mr David Gillick, manager of policy and regulatory affairs at the PA Consulting Group, throws more water on the idea by pointing to the problems involved in a subsequent share distribution. What interests him, is whether the Government will use the review to announce the sale of its remaining 49 per cent stake in BT.

Della Bradshaw

## David Goodhart on the reform of the Bundespost

## New W German regime in need of a kick-start

MR CHRISTIAN Schwarz-Schilling, the West German Post Minister, believes the rest of the world has still not fully grasped how radically West Germany's telecommunications system has been deregulated.

The Bundespost, once famed for its bureaucratic inertia, now claims that in several fields it has the most liberal regime in the world.

The trouble is that the private sector in telecommunications has also been slow to grasp the change and even Mr Schwarz-Schilling complained, in an interview with the Financial Times, that the new regime ushered in by last year's Bundespost reform "has had a rather slow start."

That reform broke up the Bundespost administration into three separate corporations, supposedly to be run along business lines: Telekom, the telecommunications service; Postdienst, the postal service; and Postbank. Telekom has not been privatised and competition has not been allowed on the basic voice service. But data communications and satellite transmission have been completely liberalised.

Private sector competition has been introduced into mobile telephones. And on July 1 this year the Bundespost's last monopoly of the supply of customer equipment - the first telephone - is ending.

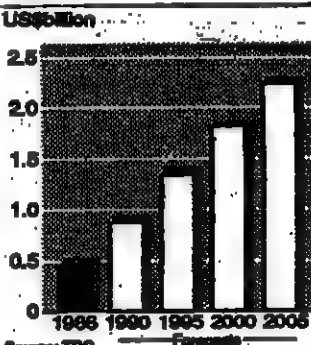
Data services and satellites are the liberal stars. Anybody can set up a data link, no licensing required, only registration. That has prompted the UK-based Telecommunications Research Centre to conclude that West Germany, the fourth-largest telecommunications market in the world, has probably the world's most liberal regime for "value added services."

Mr Schwarz-Schilling says he had a few nervous moments at the end of last year when he feared his de-regulatory zeal might be pulled back by the European Commission which, at French prompting, was requiring a tougher licensing arrangement than laid out in the Bundespost reform.

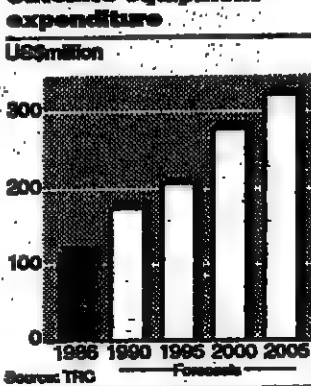
He is also currently engaged in a race to push through as quickly as possible "the most liberal satellite law in the world" before the EC can interfere.

Some Telekom executives are fearful of the proposed satellite freedom because of the potential loss of revenue. But, significantly, in this field as in others, the Post Ministry is ruling against the interests of its main money-spinner and not, as feared, protecting it. With an operating profit for Telekom of DM7.5bn last year, the Ministry can perhaps afford to be generous, although it still needs a lot of that cash to pay off the losses of the letter and parcel service - due to break even by 1995.

Mobile equipment expenditure



Satellite equipment expenditure



Source: TRC

Another area where Telekom will lose out is in leased lines which have been exceptionally expensive by international standards and more than double the price of leased lines in the UK. Megapet, the Cologne-based group owned by three large insurance companies, has started leasing lines in bulk from the Bundespost and selling capacity on them at a 25 per cent discount to Telekom's prices.

A non-regulated voice transmission is allowed on the leased lines, provided no public switching is involved; it is surprising that more companies have not been exploiting the new opportunities.

That may be because various uncertainties remain. For example last year Telekom was forced to drop the volume charge on leased lines but retained a surcharge on international connections. The EC has ruled against this surcharge but users complain that it is still being levied. Users also complain that Telekom is not yet charging cost-oriented tariffs for leased lines used by mobile phones.

Similar uncertainty surrounds data transmission. Mr Schwarz-Schilling says that when data transmission uses the public network, voice can only be used when it is not the "main function." That has left doubts about the legality of such things as TV conferences.

However, radicals inside Telekom point out that the old ordinance which prevents voice traffic accompanying data transmission is only valid until July of next year and, what is more, can be removed

before then on request. Nobody, it seems, has yet requested it, and corporate customers who have asked to put voice on private data lines are being told by Telekom officials at local level that it is not allowed.

Several companies - such as VASCOM, BAFG and INFO AG, mainly subsidiaries of large groups like Siemens, Thyssen and Telecel - have started exploiting the possibilities in data transmission by setting up internal networks for large companies or providing general services like electronic mail.

However, according to one insider: "The market is not yet blooming as it should because the industry is still thinking in the old categories. The Government had done its job but the industry is a little bit slow to pick up on it."

Telekom itself, under the seemingly competent leadership of Mr Helmut Rieke, is divided about the new regime. Conservatives fear revenue loss from the big holes now blown in the monopoly, and sharp downward pressure on the price of leased lines and other services used by business. Radicals argue that Telekom will more than make up from monopoly revenue loss through the more intense usage of the public network that liberalisation will bring.

Telekom is also itself competing in value added services and Mr Rieke has said his aim is to double Telekom's income from such services - currently DM3.2bn - in the next five years. It is also just beginning to operate internationally.

The radicals are supported by researchers at the Telecommunications Research Centre who conclude their report on Telekom thus: "Within five years it could be earning as much as 20 per cent of its annual turnover from overseas activities, and TRC's analysts believe that its increased activities in value-added services within West Germany will boost domestic revenues by at least 15 per cent a year from 1992."

Users, however, continue to complain that the more customer-oriented approach promised by Telekom to ordinary customers - business or domestic - is scarcely evident yet. And there is some scepticism about claims that the telecommunications infrastructure will soon be changing from a disincentive to do business in Germany to an incentive.

It may be unfortunate that Mr Rieke and his senior managers have now been distracted by the modernisation of the East German network - a second mammoth task. Though Mr Schwarz-Schilling points out that if the East German revolution had come one year earlier "then I would have had serious problems getting the reform through."

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## INTERNATIONAL TELECOMMUNICATIONS 4

As political controls on France Télécom are eased, William Dawkins reports on how the company plans to stay ahead of its rivals

## Success story of a defender of the public service ethic

FRANCE has earned a reputation among its northern liberal European Community partners as being all too eager to put a brake on the wave of deregulation sweeping the telecommunications industry.

The government may have political reasons for allowing such an image to exist – yet the way it runs its telecommunications industry at home is very different.

Certainly, France feels more strongly than most about the importance of defending the public service ethic of its telecommunications authority and so keeping competition from the private sector under careful control.

But it also happens to run, in the shape of France Télécom, one of the most technologically advanced and commercially successful telecommunications services in Europe.

France Télécom, one of the country's biggest industrial employers with sales of FF4.5bn last year and 155,000 staff, is now being offered more independence from the political controls under which it has its predecessors have existed ever since 1857, when Louis Philippe was attempting to regulate the early telegraphic service.

The plan, which coincides with new rules laying out for the first time just where France Télécom will face competition, aims to balance reform with the preservation of the organisation's public service role. It is one of the biggest legislative tasks to have been tackled by this Socialist government in its first two years.

The government is partly acting under the pressure of European deregulation, but it is also being egged on by France Télécom itself which, as its top people become more entrepreneurial in outlook, is getting increasingly unhappy at having the status of a civil service department.

In the past two decades, France has moved from having one of Europe's worst telecommunications services to one of its best, with business and domestic phone charges among the world's lowest, the world's largest data switching network and the greatest availability of digital transmission.

An outstanding example of

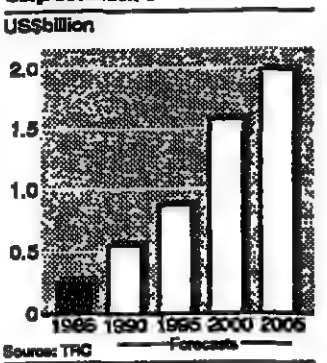
France Network digitalisation ratio			
	1988	1990	1995
Per cent digital local exchanges	63	73	92
Per cent ISDN local exchanges	55	68	100
Per cent transit exchanges	68	79	100
Per cent local transmission	93	95	100
Per cent trunk transmission	69	75	99

these technological achievements is Minitel, the world's largest videotext service, with more than 5m free terminals in French homes and offices. It gives access to several thousand services from erotic messages – said to be on the decrease – to home banking, share prices, tele-shopping and travel bookings.

Of course, France Télécom has missed the odd trick here and there. It is way behind the game on mobile phones, where the density of mobiles in use in France is a mere fifth of that in Britain and one twentieth of Scandinavia. This is perhaps a result of having concentrated too much in recent times on Minitel and on installing fibre optic cables.

Even so, argues the govern-

ment, the broad success of France's telecommunications service comes thanks to an environment which allows the public authorities to provide modern services to all at the same price across the nation.



Source: TTC

This is reflected in the diplomatic efforts exerted by Paris in winning its EC partners' agreement on the EC directive on telecommunications services, in the hectic final weeks of France's presidency of the EC last December.

The directive introduces free

competition for the provision of basic and value added services.

This is, however, subject to strict conditions, modelled on a compromise put forward by Paris, to allow telecommunications authorities to stop private competitors from undercutting public providers too much on the busiest and most profitable services.

The French internal reform, drawn up over the past year by Mr Paul Quilès, the Telecommunications Minister, would split France Télécom and the Post Office – now both part of his department – into separate organisations, and give them operating autonomy.

At the time of writing, Mr Quilès was going through his final consultations before presenting it to France's Council of Ministers for adoption as official policy to be put down at the spring session of Parliament.

France Télécom would be turned into a state-owned public service company like the rail board, the SNCF. However, the telecommunications regulatory authority will stay where it is, in the Ministry, in contrast to the independent status granted to Ofcom, its British equivalent.

While nothing in the EC directive directly obliges Paris to give France Télécom this independence, the government does accept that it needs more freedom to allow it to hold its own against the fiercer international competition likely to be unleashed by those European reforms.

In line with the EC rules, France Télécom would keep its monopoly on the basic network and phone services, but continue to allow competition for the supply of terminal equipment and for value added services like home banking, subject to strict licensing conditions.

France Télécom, welcomes the Community proposals, for

practical as well as political reasons.

It objects strongly to its budget being available to subsidise other government spending programmes. This is a real handicap at a time when it needs to invest heavily to catch up in mobile phones, where it plans to bring in a Telepoint-style pocket phone service nationwide by the mid-1990s, and to introduce other new facilities such as integrated services digital networks.

"Above all, we need fiscal stability. Under present conditions, our finances are decided for political reasons, which means we cannot make contracts on a commercial basis," says Mr Marcel Roulet, France Télécom's director general.

"I am not asking for total

freedom. I accept that the government should be allowed to set three basic parameters: our quality of service, our maximum level of borrowing and our prices – but that is all," says Mr Roulet.

Suppliers' and customers' organisations equally welcome the prospect of change, on the grounds that France Télécom should be easier to do business with as a public company than as part of the powerful PTT Ministry.

At present, says Mr Jean-Claude Lavenir, head of S3T, the telecommunications equipment makers' association, the government is "judge and jury in its own case."

However, the reform could make life harder for French suppliers if it makes it easier for France Télécom to pursue a

less nationalistic purchasing policy, something it is already being obliged to do by the pace of technological change. To keep its networks up to scratch, France Télécom is obliged to look abroad for suppliers more than in the past, since the domestic industry cannot be expected to supply all of its increasingly complex needs.

Giant Alcatel, the dominant supplier, can compete, partly thanks to the government's supportive industrial policy of the past decade, but also helped by its merger with the telecommunications activities of ITT of the US, creating Europe's largest telecommunications equipment group.

Smaller producers like SAT, 15 per cent owned by Matra, may be vulnerable without all-

ances with larger foreign groups, fear observers.

As elsewhere in the French public sector, the unions representing the 450,000 staff of both organisations, are the big uncertainty. They are less of a threat this time than three years ago, when Mr Gérard Longuet, Mr Quilès' predecessor in the previous right-wing government, tried to shake up the sector.

He tentatively floated the idea of privatising France Télécom, like its British neighbour, but the intensity of union opposition forced him to scrap the scheme.

The unions are divided on Mr Quilès' plan. The moderate white collar FO and CFDT accept that change must come, so long as their members continue to get civil service type

job security from their more independent employers.

On the face of it, Mr Quilès plan satisfies the union demands.

The communist-led CGT, the union which last autumn organised Peugeot's worst ever strike, thinks this is a sneak privatisation plot, a suggestion strongly denied by Mr Quilès' advisers.

The aim of the scheme, they argue, is simply to give a relatively efficient public monopoly a little more freedom, just so that it can stay ahead of a game that is getting both faster and more international in nature.

The CGT is not entirely convinced, but then it is less influential among the workforce – harrasing Peugeot – than it was in Mr Longuet's day.

David Goodhart on the task of overhauling East Germany's antiquated network

## Time and money needed to re-wire

IN SPITE of a relatively sophisticated technological infrastructure, by East European standards, East Germany's telecommunications system is nothing to boast about. In privileged East Berlin a respectable 43 per cent of inhabitants have telephones but in the country as a whole it is only 10 per cent (1.6m telephones for 16m people).

In the country as a whole, only 10 per cent of the population has a telephone

That is above the east European average (although below Bulgaria) but East Germany (GDR) is now, naturally enough, being compared with West Germany (45 lines per inhabitant) rather than the rest of eastern Europe.

The GDR has invested about 600m Marks per year in telecommunications over the last five years but the number of lines has only been increasing at the rate of 10,000 per year and an estimated 1.2m households are waiting for a connection.

Such poor progress is partly attributable to politics. The old regime did not want its people to be able to talk to each other or the outside world too easily, and a large chunk of resources was monopolised by the secret police. But it is also straight-forward technological backwardness apart from one small experimental switching centre GDR industry has not been able to produce digital switches and the Cocom list has prevented import.

About 70 per cent of all public switching equipment is 25 to 30 years old and 23 per cent stems from the period 1923 to 1934. Only about one third of the public network is of high enough quality to be used for data transmission and most of that is in East Berlin. The central switching trunk is not the problem so much as the local link to the home or factory.

The backwardness of GDR telecommunications is, according to Mr Christian Schwarz-Schilling, the West German Post Minister, the single most important "bottle-neck" in the way of swift modernisation of the economy by West German business.

Connections between East and West Germany are – for

past political reasons – even worse than the average international connection. Before the GDR revolution there were only 395 lines between the GDR and West Germany and 630 the other way round. And there were no direct links, so that a call made from Exhrt (in the GDR but near the inner-German border) to Kassel (just the other side) would have to go back to East Berlin and onto the international net.

It is estimated that it will take five to seven years and cost DM20bn to DM30bn to raise the GDR to West German levels. This cannot be short-circuited by leaping straight to mobile communications, as some have suggested. The country needs re-wiring and that takes time.

The burning issue is how to provide transitional arrangements – especially for business – to prevent the telecommunications bottle-neck from slowing modernisation. As part of these transitional arrangements mobile phones, microwave connections and satellites will all play a role.

What has already been announced by Bonn and East Berlin falls well short of providing adequate transitional arrangements but is a start.

Bonn announced in February an immediate grant of DM250m most of which will be spent on importing 15 container-sized switching centres of 2,000 lines each. The new orders have been won by Siemens and SEL.

For the year as a whole an increase of only 100,000 lines is expected – "a drop in the ocean" according to Mr Heins Uhlig, the GDR's deputy Post Minister, who has also announced that the former secret police lines can be taken over.

The GDR-West Germany com-

nections can also only be slowly improved; by the end of this year there should be 892 lines from the GDR to West Germany and 1,400 the other way round. An extension of the glass fibre link connecting West Germany to West Berlin is now being worked on.

For West German businessmen who want to speak to each other within the GDR or

An increase of only 100,000 lines is expected this year – "a drop in the ocean"

who want to talk to West Germany without having to wait several hours the best temporary solution is an extension of the current West German mobile telephone system into various areas of East Germany. This can be done relatively swiftly and cheaply through building a few receiving stations.

One other intriguing possibility – currently being examined – is the connection of the internal networks used by the top 30 GDR industrial groups to the West German grid.

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For decades eastern Europe was virtually isolated. Hugo Dixon on the changes in (clockwise) the Soviet Union, Poland and Hungary

## The paranoia eases

"SINCE the revolution, communication has been the big issue," says Mr. Joel Schatz, president of Sovam Teleport which has pioneered an electronic mail service between the Soviet Union and the US.

The Soviet telecommunications system has almost been designed to prevent people from communicating with one another.

First and foremost, the Soviet Union is virtually cut off from the rest of the world. All international phone calls from this vast territory, with a population of nearly 300m, are channelled through one international exchange in Moscow which has only 1,500 lines with the outside world.

Inside there are about 20 operators fielding calls from across the Soviet Union. Not surprisingly, it is almost impossible to get through to an operator and even once you are connected to an operator, it can take several hours before you are put through to your international destination.

Last year, people in the Soviet Union made collectively only 11m international phone calls, an average of one for every 25 of the population. These calls were unevenly distributed. Only 7 per cent of the total capacity is dedicated to the general public; 93 per cent is reserved for people such as top government and party officials, embassies and foreign joint ventures who are able to make international calls without going through the international operator.

Other examples of the system militating against communication include the almost total absence of telephone directories and the paucity of switchboards, meaning it is almost impossible to discover somebody's telephone number.

This restrictive approach to communications is out of place in the current era of glasnost and perestroika. Freedom of expression is guaranteed not only by free access to printing presses but also by a properly developed telephone system; and the prospects for reforming the economic system will be undermined unless new channels of communications are opened up.

The Soviet Union's paranoia over foreigners communicating with one another and with the outside world has eased in

recent years. As a result, the foreign community in the country enjoys what are comparative oases in the communications desert experienced by most locals.

Foreign broadcast organisations such as the BBC and NBC say there is now no problem in transmitting their broadcasts back home over the Soviet infrastructure. And anybody who has a ready supply of hard currency can import facsimile machines from the outside world and attach them to the Soviet network, or use one of the embryonic data communications network that has been springing up, such as Sovam Teleport.

The Soviet Union plans to increase the number of telephones from 40m today to 100m

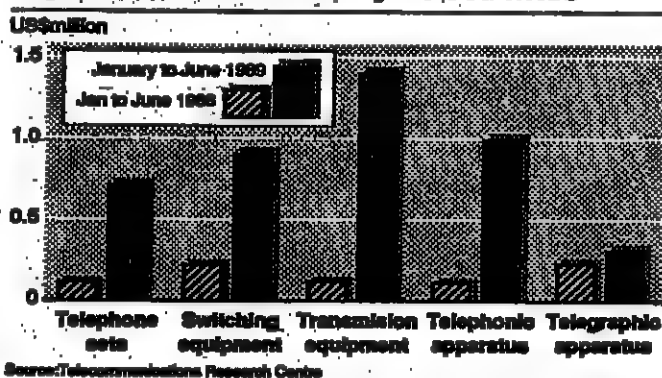
**The Soviet system has almost been designed to prevent people from communicating with one another**

in 2005. What remains unclear is how this programme is to be accomplished.

Decisions on how far the market should be liberalised are likely to be fought out in the coming year between the monopoly-minded Ministry of Communications and the more free-market Supreme Soviet. Mr Yuri Gulyaev, chairman of the Supreme Soviet subcommittee on telecommunications, says telecommunications factories should be freed from the Ministry of Communications' control.

He also says licences to provide telecommunications ser-

### Exports to Soviet Union by EC countries



Source: Telecommunications Research Centre

vices should be sold to organisations outside the ministry. Mr Eren Pervysian, the Communications Minister, on the other hand, argues that there is already competition between the factories in his ministry.

It is also unclear to what extent the Soviet Union plans to go it alone in its modernisation of telecommunications and to what extent it is going to rely on help from foreign companies.

Two deals with Alcatel of France and Siemens of West Germany to form joint ventures with Soviet companies to manufacture digital exchanges have yet to be finalised. One reason behind this is the Cocom restriction on the export of high technology goods to Soviet Union and other communist countries.

Similar problems face the Soviets over the construction of a trans-Siberian fibre optic cable to link Europe with the Far East. This is planned as a joint venture between the Soviet Union, US West and other western companies.

In the absence of a relaxation of Cocom's restrictions, the Soviet Union is pressing ahead with several initiatives of its own to modernise its network. One of these involves the design of digital exchanges using channels with a capacity of 32 kilobits per second compared with the normal international standard of 64 kilobits a second, the idea being this would reduce costs.

The Soviet Union also plans to launch three giant telecommunications satellites on its Energia rocket in 1993 to provide new radio programmes and telephone service for many regions which do not have one.

POLAND is planning a radical deregulation of its telecommunications industry. The idea is that by attracting private capital it will be able to modernise its network much faster than would otherwise be possible.

Details have yet to be determined by the economic commission of the Council of Ministers. The matter will then have to go to the Sejm, Poland's parliament. However, the key elements are becoming clear.

The monopoly of the Polish Post, Telegraph and Telephone Company would be broken on all aspects of communications - local, long-distance, international, cellular and data communications.

There is also widespread acceptance that the PPTT needs to be reorganised. The merger of post and telecommunications in the 1980s has not been considered a success and plans to break the PPTT into one long-distance company and several regional ones are being drawn up.

However, plans for adding between 6m and 9m new telephone lines over the next decade to the current 3m, at a cost of \$14bn, have come in for considerable criticism from other ministries for not taking account of economic realities.

## Liberal market in the offing

The government will be unable to finance the investment itself and it is doubtful whether such large sums of money could be borrowed from international organisations.

The question of putting up the PPTT's prices to finance development is also controversial. Mr Andrzej Piesiak, a Polish senator who takes an interest in telecommunications, says any price rise should be part of a properly thought out programme otherwise there would be a danger of it being frittered away.

Several Polish companies are already gearing themselves up for the promised liberalised environment. RP Telecom, whose president is Mr Andrzej Radzinski, a former deputy director general of the PPTT, plans to build local networks. TESA, a rival company, plans a long-distance and international network.

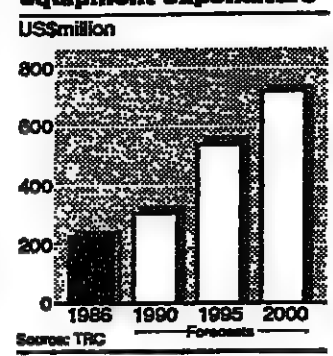
The question of foreign ownership is more sensitive. The government is concerned that if foreigners are given a free rein, they will invest only in the most profitable areas such as international and cellular

communications, leaving the PPTT with loss-making local networks.

Foreigners are therefore likely to be restricted to holding minority stakes in long-distance and international licences. At the same time, the government is considering how to make sure that private licences should contribute to the development of the basic infrastructure.

One idea would be to require them to create local networks

### Telecommunications equipment expenditure



Source: TRC

as well as long-distance and international networks. However, this is likely to be bureaucratic. A more satisfactory option would be to require them to pay a certain proportion of their revenue to a central fund which could be used to subsidise local networks.

In addition to demonopolising the market, there are plans for the PPTT to modernise its network. A \$100m World Bank loan is expected to be signed at the end of the year. This would be used principally to expand the long-distance network and the international exchange in Warsaw. The PPTT is also starting to construct a network called Polpak which will provide efficient data communications for the first time to Polish industry. Further World Bank loans are expected over the next few years.

Meanwhile, Mr Stanislaw Szuder, deputy minister of communications, is keen to see three or four foreign companies forming joint ventures with Polish manufacturing companies to manufacture digital switches.

Alcatel CIT of France

already has an arrangement with Telettra to make E10 switches. Negotiations are proceeding between other Polish producers and Siemens of West Germany, Alcatel Sesa of Spain and Ericsson of Sweden. The leading Polish manufacturer is Zwrut, a company over 100 years old based in Warsaw, which has been the main supplier of switches to the domestic market in recent years.

Mr Marek Glogowski, Zwrut's general director, says he would like to manufacture 1m lines a year of digital equipment. Some of this would be devoted to Poland, the rest would be exported - the main export market being the Soviet Union. Zwrut currently exports 50 per cent of its output, of which half is destined for the Soviet Union. A final decision on which foreign partners Zwrut should go with will be made in the next few weeks.

The Spanish government has indicated that it is willing to make a loan of \$40m in connection with the deal under which Alcatel Sesa would supply switches to the Polish market, according to Mr Szuder.

## Focus on businesses

BETWEEN them, Hungary's 10m people have 900,000 telephone lines. The Ministry of Communications is determined to increase this number to 3m by 2000 or earlier at a cost of between \$6bn and \$7bn, of which about \$1.5bn would be in hard currency.

With \$20m of foreign debt and a large budget deficit, the Hungarian government is not in a position to act as a sugar daddy to Hungarian Telecom, the country's phone company. How then is the investment to be financed?

Although the defeat of Hungary's communist party in elections earlier this month may lead to changes in some details of telecommunications policy, the broad thrust is clear.

Mr Gyula Partos, director of policy at the Ministry of Communications, says that half of the investment will have to come from Hungarian Telecom's own resources. The remaining 50 per cent will be split 10 per cent from the government, 10 per cent from

loans, and 30 per cent from foreign equity investment.

For foreign loans, Hungary will be relying mainly on the World Bank and the European Investment Bank. The World Bank already made a \$70m loan to Hungary for telecommunications in 1987. It is now working on a further \$200m loan, which is expected to be finalised later this year.

Hungarian Telecom's strategy for financing its share of the investment is to focus on the business customer. Serving business needs is not only the highest priority from a macro-economic point of view. Businesses also have sufficient funds to pay for Hungarian Telecom's services.

In addition, argues Mr Ferenc Walter, Hungarian Telecom's director general, it will be necessary to increase the prices by 10 per cent in real terms over the next five years. Such an approach, however, does not find favour with Mr Bela Doros, deputy minister of communications. He believes that Hungarian Telecom will

have to generate more resources internally by becoming more efficient.

An even more contentious issue between the ministry and Hungarian Telecom is the question of how foreign equity capital should be raised.

Dr Walter argues that foreign partners should be encouraged to take equity stakes of about 30 per cent in Hungarian Telecom and has already held discussions with a wide range of foreign phone companies from western Europe and the United States, including the UK's Cable and Wireless, US West and Bell Atlantic.

However, Mr Partos at the ministry argues that a better approach may be to "privatise the market rather than privatise the company."

By this, he means that a separate organisation would be set up with the responsibility of building a modern overlay network to complement Hungarian Telecom's existing network.

The overlay network would

concentrate on building modern transmission links between the main cities in Hungary and providing local services to businesses.

Mr Partos envisages the new overlay network being run as a 50-50 joint venture between Hungarian Telecom and private sector partners. These partners might be large local groups such as the railway and electricity companies which already have private phone networks, as well as foreign companies which would be expected to provide hard currency.

The advantage of such a move, says Mr Partos, is that the new venture would start with a clean slate and would not be weighed down by the culture of Hungarian Telecom which is lacking in entrepreneurship.

The government also intends to liberalise the telecommunications market. According to Mr Partos, the basic network and voice service would remain the monopoly of Hungarian Telecom or the new joint venture.

Mobile communications and basic data communications would be open to partial competition with one or two players being licensed as rivals to Hungarian Telecom. And the rest of the market - including value added services and the supply of terminal equipment - would be completely competitive.

The first foreign company to take advantage of the new liberal regime in Hungary is US West. Last year, it formed a joint venture with Hungarian Telecom to provide a cellular communications network in Hungary.

This network should be ready by the end of the year. The pent-up demand to get access to any phone service is so great that the new cellular service's first 1,000 lines have already been over-subscribed.

There are also opportunities for foreign equipment manufacturers to supply infrastructure to Hungarian Telecom as part of its modernisation programme.

The Ministry of Industry, though, is insisting that such supply should be done via joint ventures with existing Hungarian manufacturing groups. Three such joint ventures have been formed.

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## INTERNATIONAL TELECOMMUNICATIONS 6



## The old and the new

The economics of installing telecommunications cables are changing. As the price of optical fibres continues to drop, the technology is an attractive alternative to satellites for long-distance communications. The position of fibre optics has also been strengthened by the recent spate of satellite launch failures.

NIPPON Telegraph & Telephone, the Japanese telecommunications utility, has won an important battle against the Ministry of Posts and Telecommunications, which is seeking to break up the giant corporation. But it has yet to win the war.

At the end of last month the Government rejected calls from the ministry to take NTT apart in the same way that AT&T was split up in the US in the early 1980s. The ministry's advisory council, the Telecommunications Council, had recommended splitting NTT into three — a long-distance company, a local calls operator and a mobile telephones business. However, the Government left open the possibility that the decision might be reconsidered in the future — although not until after 1995.

The telecommunications ministry, which has always resented the independence won by NTT when it was privatised in 1987, remains committed to a break up. However, the company has a powerful ally in the Ministry of Finance, which was responsible for selling NTT stock and is very concerned about the impact of the threat of break up on the NTT share price.

The stock which was originally issued at ¥1.6m and soared to ¥3.2m has recently been trading near ¥1m. The decline has forced the ministry to postpone further sales of NTT shares and could jeopardise plans to privatise other state-owned activities, including railway companies.

Mr Ryutaro Hashimoto, the

Stefan Wagstyl looks at the battle to split NTT

## The giant fights back

Finance Minister, said at a press conference: "The decision is valuable because it shows full understanding that the break-up cannot be realised without agreement and assistance from NTT and shareholders."

However, the government and the ruling Liberal Democratic Party expect NTT to work to answer its critics' complaints. The charges against the corporation are that it is too big to be efficient, and that because of its size it tends to monopolise telecommunications services to the detriment of the consumer.

Critics say that three rival companies established to handle long-distance telephone calls are too small to compete. They add that the inadequacy of the company's management controls was highlighted by the Recruit affair, in which three former senior officials were charged with accepting bribes, among them Mr Hisashi Shinto, the chairman.

NTT has been responding to such claims since before its inception as a private company. Since 1986 it has cut its workforce from 304,000 to 277,000 and reduced long-distance charges at a cost of some ¥200bn a year in revenues. In the year to last March, revenues totalled ¥5,841bn. It

has left the cost of a local call unchanged at ¥10, for fear of provoking opposition from politicians.

The company now intends to redouble its efforts. After the announcement of the decision to postpone any consideration of a break up, NTT said in a statement that it would do its utmost for users and shareholders.

**NTT is charged with being too big to be efficient, to the detriment of the public**

The details are embodied in NTT's medium-term management plan which runs until the end of the 1995 financial year, that is to March 1996. Its watchword is "service vision," meaning a commitment to across-the-board improvements in service and management, in promoting fair competition and being a good corporate citizen.

Its plans include: ■ Cutting the workforce further to 230,000 by March 1996, by encouraging early retirement, cutting recruitment programmes, and increasing transfers to subsidiary companies; ■ Upgrading the telecommunications network by completing

creation of a digitalised network across Japan and introducing optical fibre systems;

■ Reducing the maximum cost of a three-minute long-distance call to ¥200 and improving service through a "best service" campaign among staff. A large element of this will be boosting morale in a group which once regarded itself as a standard-bearer for Japan's high-technology industries;

■ Promoting competition by establishing a Fair Competition Promotion Office, which, says NTT, is "actively working towards a fair and competitive telecommunications market." It will encourage strict accounting within divisions of NTT, which will make clear the extent of cross-subsidies between local calls (often loss-making) and long-distance services;

■ Considering forming the mobile communications business into a separate company, as demanded by the telecommunications ministry. This will probably be a wholly owned subsidiary, similar to the one NTT has already created for its electronic data services operations.

NTT is also likely to maintain its fierce public relations campaign against break up. It says the speed of change in telecommunications is so fast

that it is impractical to split the company.

It argues too that local call rates would have to be increased to cover costs if the profits of long-distance services were kept separate — as happened in the US following AT&T's division.

"The US is the only country in the world which has divided its network into intra- and intercity systems, and this was for special historical and geographical reasons. Yet even in the US there is wide debate about the efficacy of that decision," says NTT.

"In an age of increasing globalisation of telecommunications networks, all countries are retaining integration of their networks (England, France, West Germany being good examples). The overwhelming trend today is towards integration, not division, with the 1992 (economic) integration of the EC being a prime example. Japan, alone, wants to dissolve its unified and integrated network."

But rhetoric cannot win the war for NTT. It must stick to the improvements it has promised and continue to foster good relations with its allies in the finance ministry. The ministry's privatisation programme is a key element of government policy — officials will go out of their way to put their plans back on track. This will have to include rehabilitating NTT in the minds of investors, although officials will have to wait until the crash in the Tokyo stock market has finally played itself out.

## MEXICO

## On the road to privatisation

THE administration of President Carlos Salinas de Gortari faces few greater challenges than expanding and upgrading Mexico's telecommunications infrastructure.

Mexico's economy is among the world's biggest 15, yet it still has only five telephones per 100 people and about 10,000 population centres of 500 inhabitants or more without any links at all.

In terms of telecommunications infrastructure, the country is very much in the bottom half of the world league at about 90th place.

At the same time its internal and external telecommunications have generally fallen far short of the expectations and needs of its sophisticated businesses.

Faced with the need to raise revenue and in line with the Salinas philosophy of limiting the state's role in the economy, the Government last October set about the privatisation of

The process was helped by the fact that Ericsson and Indetel-Alcatel, Telmex's two main suppliers and contractors, both with large manufacturing bases in Mexico, hire and use their own labour to install equipment.

The lack of development reflects the six years of economic stagnation following the financial crisis of 1982 and the fact that Telmex has handed nearly a third of its revenue, rather than profits, to the government.

It has not, however, suffered liquidity problems, and has been able to borrow from banks through import financing or direct credit.

At the turn of the year its fiscal regime was changed so that Telmex now pays the flat-rate corporation tax like any other company. In addition, long-distance rates have been cut to a level nearer the international norm while domestic rates have been increased.

Among the guidelines for privatisation are that the government will continue to regulate the industry and that the percentage of foreign shareholdings should not exceed 49 per cent, with a ceiling of 10 per cent on any single holding.

The new owners will be granted a 30-year concession to operate the network to be reviewed every five years.

Among the long-term aims for the privatised Telmex would be to ensure that every population centre of 500 people or more is connected to the network. Another is to increase the per capita number of telephones from 10 to 20 by 2000.

Initially, however, the target will be to ensure that at least 50 per cent of Mexico's exchange stations and 65 per cent of its long-distance network are digitised by the end of the fifth year after privatisation.

In privatising the company,

**The lack of development reflects six years of economic stagnation following the crisis of 1982**

the Ministry of Finance has set a price of \$6bn, suggesting that it is looking for proceeds from the sale of rather more than \$3bn. Because of the amount of capital involved, present thinking is that the sell-off might have to be phased with the first stage not necessarily completed this year.

The authorities have in mind as a model the UK's privatisation of British Telecom in the early 1980s even though there is no scope for selling to subscribers or individuals on such a similarly large scale, given the thinness of the Mexican Stock Exchange.

However, the authorities would like to see competition in value added services. Eight cellular franchises were awarded last month. To date no decision appears to have been taken about a long-distance competitor to Telmex, such as British Telecom, has in the shape of Mercury.

As privatisation approaches, Telmex has been greatly reinvigorated and shows signs of having the potential under a new regime to make up for lost ground.

Richard Johns

# Last year we invested £3 billion in Britain. So where's it all gone?

To be quite honest, a lot of it has just disappeared.

Of all the money British Telecom invested last year, some £1 billion of it went, quite literally, into a hole in the ground.

Thousands of kilometres of optical fibres, for example, vanished, never to be seen again.

By the end of the year, in fact, all UK trunk calls will be carried digitally. Local lines are being replaced too.

But although the investment remains unseen, it will be heard.

Connections will be faster. And more reliable. Crossed lines will become a thing of the past.

Above ground, we've been putting our money into new exchanges, and improved computing power.

Last year over \$2 billion was spent on network modernisation alone.

And as local exchanges become digital, (we're modernising two a day) three-way calling, call diversion, and automated alarm calls will become universally available.

Digital communications will allow faster transmission of data and pictures too.

The benefits to business are obvious. An advanced economy needs a telecommunications network to match.

Building one from scratch would be hard enough.

But modernising the one we've already got is like turning a Tiger Moth into an Airbus. In mid air.

It can be done.

It just takes time.

And a great deal of money, of course.

British  
**TELECOM**  
It's you we answer to



## INTERNATIONAL TELECOMMUNICATIONS 7

To import or not? David Housego reports on India's bitter division

## Row raises foreign hopes

FOUR months after the coming to power of the new Indian administration of Prime Minister V P Singh, the disputes over telecommunications policy are far from being resolved.

India needs to spend about \$8bn over the coming years to install an additional 15m lines and digital switching equipment. The leading issue at stake is whether it will rely on the indigenous Centre for the Development of Telematics

**India needs to spend \$8bn on an additional 15m lines and digital switching equipment**

(C-DOT) technology for main urban switching equipment or whether it will turn to international suppliers.

Until last November's general election, Mr Sam Pitroda, the US-trained electronics engineer who headed both C-DOT and the telecommunications department of the government, had a free hand to determine policy. Last year he closed the door to further imports by announcing that India would rely on C-DOT technology to develop its own main exchanges.

Because Mr Pitroda had the

confidence of former Prime Minister Rajiv Gandhi, he immediately came under the suspicion of the new administration.

Mr K P Unnikrishnan, the new Minister of Communications, announced that India would not hesitate to import technology if this was needed. Currently Alcatel's E10B digital exchanges are manufactured in India under licence. The only plant, however, at Mankapur in Uttar Pradesh, has a limited capacity of 500,000 lines a year.

The new minister also set up an inquiry into the C-DOT programme to see whether it could meet India's requirements and what the delays would be in producing main exchange equipment.

Although its report had not been published by the beginning of April, leaks had surfaced of the bitter divisions within the committee. Four of the 18-person committee led by Mr G M Meemamsi, himself an executive director of C-DOT, accused the majority of attempting to pilory C-DOT - and Mr Pitroda in particular.

The controversy has inevitably raised the hopes of foreign manufacturers of gaining a wider share of the Indian market. Alcatel, as the existing foreign supplier, is best placed to

achieve this.

However, Ericsson, AT&T, Siemens and British Telecom are all looking for niches for themselves - some of them in areas apart from digital switching systems.

A prototype of the C-DOT 16,000-port main exchange is currently on field trials in Bangalore though operating with only 3,000 lines.

Mr Pitroda says this could be raised to 20,000 lines when

**Mr Sam Pitroda's unorthodox approach has made him many enemies**

commercial production begins in June - about nine months behind schedule - and to 40,000 lines by the end of the year.

Though Mr Pitroda has won praise for his development of low capacity office (PABX) and rural (RAX) exchanges, he has still to dispel doubts that the modular system on which C-DOT is based can handle the large traffic of an urban centre. The C-DOT main exchange is based on the same architecture as a low capacity one - but it is enlarged by extending the number of printed circuit

boards. Multinationals which have tried this modular approach claim that it cannot be adapted to main urban exchanges.

So far 30 manufacturers have been licensed to produce the low capacity 128 port C-DOT PABX of which 1,200 systems are in service. Ten manufacturers are producing C-DOT rural exchanges, and 100 have been installed.

The 512-port exchange with 1,500 lines is ready to go into production - although it is said to have had some problems with its software - with eight manufacturers licensed to produce it.

Mr Pitroda's strength is that he has had much of the Indian scientific community on his side and strong support from his own 500 C-DOT team. His philosophy of self reliance appeals to a government which is attempting to cut back imports and thus save on foreign exchange.

As the C-DOT exchanges are part of a family of products, Mr Pitroda claims that no new production facility would be needed to shift to the making of main line exchanges. His C-DOT exchange would work out in terms of line installed at well below the cost of the French system.

Since the change of govern-

Indian telecommunications: forecast to 2005 by % of total expenditure and value (\$m)					
Product Sector	1988	1990	1995	2000	2005
Public switching	27%	29%	26%	23%	21%
	353.2m	889.0m	962.0m	1,068.0m	1,071.0m
Transmission	26	26	25	25	24
	340.1	806.0	825.0	1,150.0	1,224.0
Cable (including fibre optic)	9	11	11	10	11
	117.7	341.0	407.0	460.0	561.0
Satellite earth equipment	4	5	5	5	5
	52.3	155.0	165.0	230.0	255.0
Data communications	4	4	7	9	10
	52.3	124.0	259.0	414.0	510.0
PABX and key systems	6	7	7	8	8
	78.5	217.0	259.0	368.0	406.0
Customer premises equipment	8	9	9	8	7
	104.6	279.0	333.0	368.0	357.0
Mobile communications	85.4	217	298	460	510
Other equipment	11	2	2	2	4
	143.9	82.0	74.0	92	204
TOTAL	1,308.0	3,106.0	3,706.0	4,890.0	5,100.0

Telecommunications Research Centre

ment, however, and the setting up of a committee to look into C-DOT and its business practices, the issues have become entangled in personalities and politics.

A charismatic figure able to inspire enthusiasm, Mr Pitroda's unorthodox approach has made him enemies both among the bureaucracy and in industry.

In what seems some modification of his earlier hostility to multinationals he has more recently indicated that foreign companies might be brought in to supply switches for large urban exchanges above 40,000

lines. But he has equally made clear that he has no wish to quit - whatever the pressures on him.

The danger of this dispute continuing is that it will further delay the updating of the Indian telephone system.

As things stand, it is virtually impossible to obtain a call between New Delhi and Calcutta during the day time and difficult to reach Bombay. Beyond this, the system is totally inadequate when it comes to handling the increasing volume of data traffic companies want to send.

## NIGERIA

## Nitel a poor advertisement for Nigeria

AN advertisement by Nitel, Nigeria's state-owned telecommunications monopoly, proclaims that the corporation provides efficient, effective and reliable services: "Nitel, a sure link to everywhere".

The corporation has trouble, however, living up to this extravagant sobriquet. For instance, demand in Lagos, the largest city, is conservatively estimated at twice the connected capacity of 97,000 lines and a 20 per cent success rate on attempted calls. As one businessman in Nigeria puts it: "The primary restriction to development in this country is the deplorable state of its telecommunications."

Nigeria is Black Africa's largest country in terms of trade and population. With an economy based primarily on the export of oil, it experienced a boom in the 1970s and early 1980s with foreign exchange earnings rising to a peak of \$2.8bn in 1980.

Since the collapse of the oil price, earnings have fallen to about \$8bn last year. Coupled with a foreign debt of \$30bn, the government is faced with the problem of how to develop a country of more than 100m people while suffering a net outflow of capital.

Against this background, a truly effective telecommunications system is regarded as essential by both government and the World Bank if old businesses are to be retained and new ones attracted.

The task facing the authorities is colossal. Informed sources put the national installed capacity at 394,000 lines but with only 250,000 theoretically operational. Of the latter upwards of 40 per cent are believed to be out of service at any given time.

The disparity between installed and operational capacity, according to one technician, dates back to a trend in the 1970s to install exchanges in locations where demand was minimal. An exchange of 500 lines might be supplying demand for 50. In addition, many of the projects were not turnkey; an exchange might be installed but without the surrounding cable network to connect it to potential customers.

**More and more businesses in Nigeria are searching for an alternative to Nitel**

That so many of the operational lines are out of order is due to poor maintenance. In 1985 foreign suppliers ceased to maintain installed equipment because, sources say, of payment disagreements. Although Nitel staff had been trained for maintenance, a high proportion had either left the corporation or had office jobs and were no longer in the exchanges. A simple matter such as broken air-conditioning would lead to a system overheating, and spare parts were not forthcoming.

In addition, there has been considerable delay between the supply and installation of equipment. Civil works contracts in relation to the construction of the new exchanges were awarded to local companies which failed to complete the buildings on time. This resulted in some of the exchange equipment being warehoused for up to 10 years.

As a move towards rehabilitating and expanding the system, a decision has been taken by the federal government to commercialise Nitel, which up until 1988 has made recurring losses. Charges for both local and international calls were increased by more than 70 per cent and a concerted effort was made to collect unpaid bills.

For instance, there have been mass disconnection exercises where customers have had to produce receipts to prove that payment has been made. Only then were lines reconnected. In a well-publicised move, the Sheraton Hotel had all its lines cut for non-payment only for Nitel to

admit an accounting error.

Sources within Nitel say that the result has been a turnaround in the corporation's finances with a reported profit in 1989 of N770m (\$102m). But many observers are sceptical of these figures.

While the profit objective is laudable, many of the larger corporations protest that the price increases are excessive and the standard of service remains poor. In past years the banks and oil companies paid for open lines both within the country and to international destinations as a means of ensuring reliable communications. The recent tariff increases, however have made Nigeria one of the most expensive countries in the world in which to secure an open-line.

One businessman estimated the cost of an open-line from Lagos to Port Harcourt, the centre of the country's oil industry, to be N167,000 (about \$22,000) per annum; the price of an open-line to London is about N1.7m (£200,000) per annum. Instead of attracting new business to the country

**'Commercialisation is insufficient. Privatisation is what we are looking for'**

through improved services, Nitel's charges make the cost of operating in Nigeria prohibitively high.

More and more businesses in Nigeria are searching for an alternative to Nitel. The state-owned Nigerian National Petroleum Corporation has invested in its own national telephone network using microwave links. Many leading companies have high-frequency radio networks to link their offices and factories around the country.

But companies do not find such systems trouble-free. As one businessman puts it: "There is no regulation of the airwave. One week our frequency was clear, the next we were sharing it with the army and a construction company."

Restructuring Nitel remains the long-term solution to the problem and negotiations are presently under way to secure finance for what is termed the First Telecommunications Project. With a total cost of \$800m - 75 per cent in foreign exchange, 24 per cent in aid - Nitel is discussing a loan of \$200m with the World Bank. This still leaves a foreign currency financing gap of \$175m which it is hoped will come from export-credit agency cover. However, export credit agencies regard Nigeria as a high-risk country having suffered substantial losses in the early 1980s.

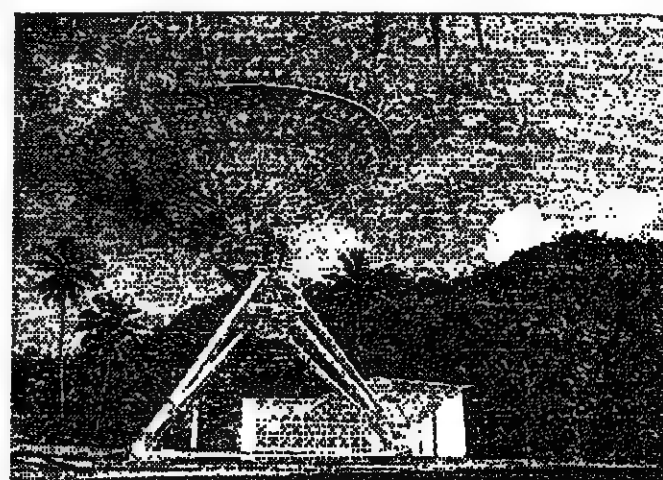
The project envisages expanding the national network by a further 213,000 lines including a further 135,000 for Lagos. This is good news for the suppliers who are headed in Nigeria by Siemens and ITT. It is believed, however, that NEC and Marubeni of Japan may attempt to increase their market share by providing the additional finance for the proposed project.

Although the project will provide for a 54 per cent increase in the number of lines, senior figures within the industry see it as only scratching the surface of national demand. At present there are only an estimated 0.3 operational lines per 100 people whereas the minimum figure generally accepted as necessary for a developing country is 1/100.

Observers are also critical of attempts by the federal government to reform Nitel. They say that the corporation is overstuffed; that the pay structure is a disincentive to productivity; and that management decisions are interfered with by government.

As one businessman explained: "Commercialisation is insufficient. Privatisation, that is what we are looking for."

William Keeling



Cable and Wireless earth station near Mahe in the Seychelles



## INTERNATIONAL TELECOMMUNICATIONS 8

## CELLULAR TELEPHONES

## The heavy cost of unregulated growth

THE market for cellular telephones in the leading western countries is continuing to expand at breakneck speed. In the UK, the number of cellular subscribers should reach 1m around the end of this month - nearly one for every 50 inhabitants - just over five years after the competing services of Cellnet and Racal-Vodafone were launched at the beginning of 1985.

The other European countries have about 1.5m subscribers between them. The US market, the largest in the world, has just reached 4m, according to latest estimates; and Japan has about 400,000.

The potential for growth is indicated by the Scandinavian nations, which still have a far higher penetration of cellular telephones than any of the other advanced countries. Sweden has 43.82 telephones for every 1,000 inhabitants, and Norway has 42.37, compared with 16.44 in the UK.

The other western European countries, which in the late 1980s mostly found themselves lagging far behind the UK and Scandinavia, partly because of their relatively high equipment prices, are expected to start catching up in the early 1990s. Growth will be fuelled by the launch in 1991 of the first of the long-discussed digital cellular networks which will conform to a common European standard - in contrast to the UK's analogue networks, which operate to different and incompatible standards.

The implementation of the digital networks, which will operate on specifications drawn up by the Group Special Mobile (GSM), a group set up by Europe's PTTs with the blessing of the European Commission, will mean that subscribers will for the first time be able to use the same telephone across most of Europe.

More significantly, it will mean equipment manufacturers, which hitherto have had to address fragmented, relatively small markets, will be able to address a single market of 350m people. This will probably increase, given the anticipated expansion into eastern Europe, where the construction of cellular networks could provide a way of establishing modern telecommunications systems more quickly than could the laying of landlines.

The East German authorities - which have already sanctioned the expansion into East Germany of the existing West German analogue system - are showing considerable interest in GSM as well. The Hun-

Country	System	Launch	Subscribers	Penetration per 1000 of pop
Austria	NMT-450	11/84	53,106	7.12
Austria	TACS-900	2/90	1,308	-
Belgium	NMT-450	4/87	33,400	3.32
Denmark	NMT-450	1/82	54,276	24.88
Denmark	NMT-900	12/86	75,809	-
Finland	NMT-450	3/82	115,318	33.75
Finland	NMT-900	12/86	52,083	-
France	RC 2000	11/85	181,231	3.34
France	NMT-450	8/89	18,000	-
Ireland	TACS-900	12/85	13,500	3.80
Italy	RTMS	9/85	75,100	1.31
Luxembourg	NMT-450	6/85	443	1.21
Netherlands	NMT-450	1/85	28,300	3.87
Netherlands	NMT-900	1/89	29,000	-
Norway	NMT-450	11/81	136,481	42.37
Norway	NMT-900	12/86	41,477	-
Portugal	C-450	1/89	3,246	0.32
Spain	NMT-450	6/82	32,940	0.84
Sweden	NMT-900	10/81	226,196	43.82
Sweden	Comvik	8/81	17,900	-
Sweden	NMT-900	12/86	125,718	-
Switzerland	NMT-900	9/87	80,051	11.86
UK	Rac-Vod TACS-900	1/85	500,000*	16.44
UK	Cellnet TACS-900	1/85	440,000*	-
West Germany	C-450	9/85	176,649	2.86
TOTAL			2,519,944	7.58

Source: Mobile Communications

garian PTT, which has set up a joint venture with the US telephone company US West to operate an Ericsson-supplied analogue system in December, is likely to follow suit.

The ability of GSM manufacturers to address a single market should help push down widely varying prices and help bring cellular closer to a consumer market. The GSM networks will account for the bulk of the 10m to 15m cellular subscribers predicted for western Europe by 2000.

However, the limitations of cellular may mean a genuine mass market will be obtainable only through other routes. The UK, for instance, is developing two technologies - telepoint and personal communications networks (PCN), which will probably be based on GSM - which are intended to address mass markets. Other countries may adopt other routes.

It is still not clear that GSM networks will achieve the proposed starting date of July

1991. Some PTTs, such as those of Italy and Spain, may be reluctant to push ahead quickly because they are only just putting new analogue systems into operation and will not want to see these systems rapidly overtaken. Manufacturers are unlikely to be able to bring out a full range of digital products by next year, and admit that digital equipment will, initially anyway, be larger and more expensive.

Problems could also arise because of the long-running dispute over intellectual property rights. The rejection by the manufacturers of proposals from the operators and the European Commission, under which patent rights infringed by the GSM specification would have been waived, has meant that patent discussions have had to be carried out by individual manufacturers on a bilateral basis.

Problems could still arise, for instance, over the use of patents in equipment sold out-

side Europe. Most western European countries have already decided to follow the UK's duopoly model for cellular by licensing a private operator to run a digital network in competition with the PTT. West Germany, France, Sweden and Finland have already appointed private operators, and Norway, Denmark and Portugal are expected to follow suit this summer.

However, all these countries will have noted the fact that in the UK the problems of growth are showing. The UK industry is only now coming to grips with the distortions caused by the competition between the 50 or so service providers, the companies which retail the service on behalf of the two network operators.

In the first half of last year this competition raised to unprecedented levels the bonuses paid to dealers, who sell equipment and sign up most of the customers. As a result, equipment prices plun-

meted. The rate at which new subscribers were being added to the networks each month nearly doubled from just over 20,000 in the early part of the year to 40,000 in the autumn.

This growth led to a significant deterioration in the service provided by the network operators. By October, more than 10 per cent of calls were failing to get through at peak times, according to the monthly statistics collected by the UK watchdog, the Office of Telecommunications (OfTel).

The situation is thought to have worsened in November and December, but OfTel has not published any figures for five months. Racal-Vodafone says its computer has been unable to gather the necessary information because of the high traffic levels. However, congestion is thought to have eased again earlier this year following a slackening of the expansion rate to 30,000 to 35,000 a month.

The growth also had an impact on service-providers themselves, who found themselves paying out so much money in bonuses that they could not make any profits. They also realised that the combination of cheap equipment and hungry dealers was attracting the wrong customers - people who were attracted by the idea of a cellular telephone for £30 but who were caught by surprise by monthly bills of £30 and could not or would not pay them. Many service providers became alarmed at the level of bad debt and the rate at which customers disconnect from the system.

Service providers have, since the end of last year, been trying to bring about a co-ordinated and gradual reduction in bonus levels in £50 steps. The market leader, Talkland International, is, for instance, planning to cut its maximum bonus from £420 to £270 at the end of this month. This reduction, together with the downturn in the economy, has contributed to the slowdown in the overall subscriber growth rate. Competitive pressures may make it difficult, however, for service providers to go ahead with a further £50 cut in the summer.

The slackening of the growth rate has also affected manufacturers who geared up their production in response to the heavy demand of last autumn. They now face a glut, and will have to cut back production.

Neil McCartney

## Personal communications networks

## Challenge to BT's grip

THE UK Government's decision last December to license three operators of personal communications networks (PCN), rather than two, illustrates its determination to use PCNs to create a mass market for mobile communications and so finally to generate competition to the fixed telephone network.

The three licensees, Mercury PCN, Unitel and the British Aerospace consortium, predict their networks will be serving between 10m and 15m customers by 2000 - roughly 18 to 36 per cent of the population, compared with present penetration of less than 2 per cent. By that time customers will be using lightweight, two-way handsets costing less than £100, which will operate in the office or at home.

Two of the operators anticipate they will be offering services to residential users at a price perhaps only 20 per cent above BT's. At the moment, the premium on BT rates paid by users of cellular services can be as much as 50 per cent for a local call at peak periods, and 200 per cent for a trunk call, according to Octagon Telecommunications Services.

The PCNs, which are expected to come into service in 1992 or 1993, are thus being advanced as the latest answer to a problem which has exercised the UK government for some time - how to provide an alternative to BT's local network monopoly.

This role had at one time been earmarked for the UK's cable television companies, but these have developed much more slowly than was hoped. Mercury itself has little interest in investing the huge sums needed to create local terrestrial networks. Other European governments are also interested in the use of mobile communications to introduce more competition into their markets.

The introduction of PCNs - which will be based on the pan-European digital cellular telephony technology developed by the Group Special Mobile (GSM), but will operate at higher frequencies, and use smaller cells - could also provide an important interim step between the GSM systems and the third-generation universal mobile telephony system (UMTS). This high-frequency system is being developed as part of the European Commis-

sion's programme of Research and Development of Advanced Communications in Europe (Race).

The implementation of UMTS - which envisages the use of hand-held personal communicators, operating to a common standard for public cellular systems and private domestic and business cordless telephones - will ultimately mean that everyone will be issued with a personal permanent telephone number.

It is anticipated that GSM systems, which have been allocated 50 MHz of frequencies in the 900 MHz section of the spectrum, will be running out of capacity in the main European urban areas in about 1996. PCNs, which in the UK will operate at between 1.7 GHz and 1.9 GHz, using up to about 150 MHz of spectrum, could thus provide the next tranche of capacity before the Race networks come into service.

The UK government's hope that other European countries would follow its lead in adopting PCNs were further boosted by last month's decision by the European Telecommunications Standards Institute - the European standards body set up by Europe's PTTs with the backing of the Commission - to prepare a GSM-based standard for PCNs.

The DTG has said it will make its own individual contribution to the standards work, in addition to its contribution through Unitel.

Perhaps more significantly, a contribution has also been offered by France Télécom, in spite of the fact that it has no immediate interest in the project. France Télécom has always maintained that PCNs should be based on the standard for the proposed Digital European Cordless Telephone (DecT) - an option originally considered by the UK - rather than on that for GSM. However, with Etsi having decided to adopt the GSM route, France Télécom may have to rethink its position, and there is still time for it to take an active role in one of the UK PCN operators.

However, some critics believe the UK operators of PCNs will find it difficult to achieve the low service prices that will be necessary for effective competition with BT. They say that if PCN is really to serve a mass market, the oper-

ators will have to spend so much on their networks that prices akin to BT's will be too low for survival.

The anticipated low tariffs for PCNs are based partly on the expectation that the networks will be much cheaper to establish than cellular networks. Each of the UK's operators expects to invest between £1bn and £1.2bn on its network, implying an investment of £200 to £350 a subscriber. This is less than half the level of investment of the UK's two analogue cellular operators, Cellnet and Racal-Vodafone. By the end of last year Cellnet had invested a total of about £800m in their two networks, which were serving about 800,000 subscribers, giving an equivalent investment of £750 a subscriber.

Some experts say that it is unrealistic to expect that PCNs will require such a low level of investment if they are to provide the services expected of them. Mr John Pickin, a management consultant for PCN applicant Ferranti Creditphone and for Etsi's Mobile Experts Group, argues that mass market PCNs, which are genuinely competing with the fixed network, will have to support up to five times as much traffic per subscriber as the existing analogue networks. This would require heavier investment in infrastructure largely cancelling out the savings that can be made through new technology.

Unitel and the British Aerospace group nevertheless maintain that they can compete with the fixed network in the medium to long term because of the economies of scale that can be expected through a mass market.

British Aerospace says it will apply the same local call rate, 30-35 per cent above BT's local call rate, whether the call is made at home, on the motorway or in any other part of the country. Initially, peak time rates for both local and trunk calls will be more. Unitel says it will charge the residential user two pence a minute off-peak for local calls made at home, and five pence a minute at peak times. If the user moves outside his home zone, an intermediate or upper-band charge will apply.

Neil McCartney

## TELESIS

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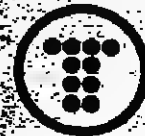
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1990  
1991  
1992  
1993  
1994

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Beyond 1992.



## INTERNATIONAL TELECOMMUNICATIONS 9

## INTERNATIONAL TELEPHONY

## Cartel distorts world economy

TELEPHONE users around the world will this year make about 500 million minutes of international phone calls. They will pay phone companies about \$300m or a dollar a minute.

The charge of a dollar a minute might seem reasonable given the fact that international phone calls have to be carried by satellites in the sky and cables on the ocean floor. However, the cost of such facilities has fallen so dramatically in recent years that customers are paying between two and four times what they should for making international phone calls, according to an investigation published earlier this month by the Financial Times.

The US Federal Communications Commission estimates that the cost per minute of using transatlantic cables fell from \$2.53 in 1955 to \$0.4 in 1988 and should fall to \$0.2 in 1992.

The explanation for this excessively high price of international calls has nothing to do with the underlying costs. It is rather the reflection of monopoly rents which the international phone companies

**The high prices reflect monopoly rents which the phone companies are extracting from their customers as a result of cartel practices which limit competition**

are extracting from their customers as a result of cartel practices which limit competition.

The effect of the international phone cartel is to create a significant distortion in the world economy, much in the same way that the Opec oil cartel distorted world trade in the 1970s. By charging people excessively high prices for communicating across frontiers, the international phone cartel distorts virtually every other branch of industry.

The cartel, which has the tacit approval of most of the world's governments, is based on four main elements.

■ Most of the phone companies have a monopoly of international communications from their country. As a result, in order to provide international phone services, the phone companies are forced to collude with one another.

■ The CCITT, the Geneva-based club of phone companies, advises its members not to allow international private circuits to be used for public phone conversations. The effect is to prevent private companies from setting up rival international phone services to compete with the cartel's members.

■ International cables and satellites are mostly owned on a co-operative basis by members of the cartel.

■ There is an obscure and complex accounting rate system for dividing up the reve-

ue from international calls. The broad principles of the accounting rate system are set by the CCITT but individual accounting rates are negotiated in bilateral meetings between the phone companies. Because only the phone company in the country where the call is originated collects money from customers, a method had to be found to compensate the phone company which delivered the call to its final destination.

The accounting rate system is intended to do this by paying the company that delivers the call for its costs. However, accounting rates are set at several times the level of costs.

— This keeps the prices charged to customers at an artificially high level for two reasons.

First, if a phone company were to reduce its prices to the level of costs, it could end up making a loss because it would be paying its counterpart in the other country artificially high accounting rates. Second, if it reduced its prices, customers would soon realise that it was cheaper to make a call out of that country than a call into it.

Since phone companies earn more money out of incoming calls than outgoing calls, any such switch in traffic which replaces incoming calls by outgoing calls, hits their bottom-line severely.

Some examples of artificially high prices:

■ A call from Britain to the US should cost about the same as a long-distance call in the UK and only 25 per cent more than a local call, according to Mr Nick Williams, the telecommunications consultant at Touche Ross, the accountants in London. In fact, a call from the UK to the US is charged at five times the long-distance rate and 15 times the local one.

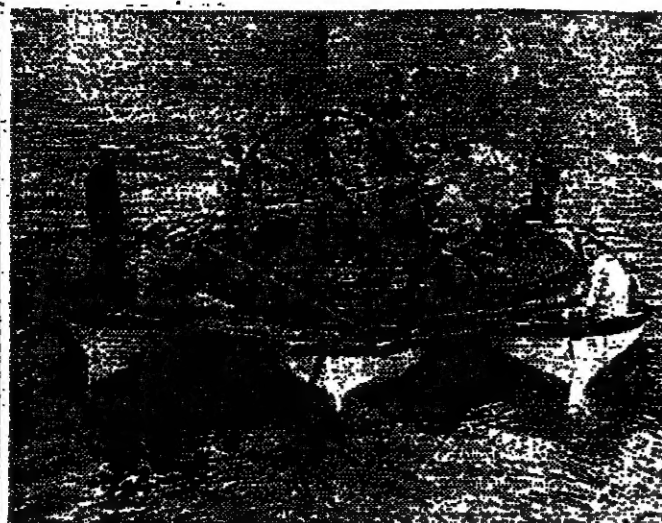
■ A peak rate call from London to Paris is charged at three times the 12p a minute rate for a call from London to Birmingham.

The international phone cartel is gradually catching the attention of the world's telephone watchdogs. However, so far no decisive action has yet been taken. Four principal things could be done to undermine the phone cartel.

First, countries could license more international operators, so abolishing their monopolies. Second, the restriction on using private circuits for public traffic could be abolished. So far, only the US has removed this restriction, something which is meaningless on its own because to operate an international private circuit, agreement is needed from both ends of the facility.

Third, countries could allow private operators to build international cable and satellite links. Finally, governments could seek to reform the accounting rate system and to drive down bilateral accounting rates towards costs.

Hugo Dixon



Breaking new ground: As the price of optical fibres drops, the technology is proving an attractive alternative to satellites for long distance communications, such as across the Atlantic



AT THE end of March, tennis fans in West Germany had the chance to watch live television broadcasts of Boris Becker playing in the Davis Cup tournament in Buenos Aires.

What they probably did not realise, between watching the power serves and the backhand slices, was that the event was significant from a communications point of view as well as a sporting one.

The pictures were transmitted from Latin America using a satellite system owned by Pan American Satellite, the world's first private international telecommunications satellite operator.

It was the first time live television coverage had been transmitted from Latin America to the Sat-1 television network in West Germany.

But although Pan American Satellite is allowed to broadcast television pictures, the complex and varying regulatory framework imposed from country to country frustrates the company's aspiration to become a truly international communications satellite operator.

Whereas telecoms liberalisation in many countries has spurred a host of private companies to dig up the countryside and lay telephone cables — particularly in the US — the restrictions on satellite services means that Pan American is still the only private satellite company. The exorbitant costs of launching satellites has only compounded the situation.

A look at Pan America's

## CABLE/SATELLITE

## Trapped in a regulatory mire

portfolio of services demonstrates the regulatory mire. In central America — Chile, Ecuador, and Guatemala — Pan American's satellite is used by the domestic telephone companies to provide ordinary voice telephone services within their national boundaries, explains Mr Doug Goldschmidt, vice president for market development and regulatory affairs at the company.

But in the US, reputed to have the most liberalised telecommunications regime in the world, the services Pan American can offer are far more restricted.

The company can provide point-to-point leased lines services, sending data voice or video pictures, but only if the calls originate or terminate outside the US. Transmitting calls that begin or end on the ordinary telephone network are strictly taboo.

Pan American is now lobbying for all that to change, to enable it to compete with the satellite systems operated by Intelsat and the trans-Atlantic and trans-Pacific cables. Even if the regulations change, though, the commercial implications are still complex, Mr Goldschmidt says.

"To some extent the voice issue is very problematic," he says. "For us to come in as a niche provider is difficult because we have to compete with Intelsat and with cable which the PTTs own."

Mr Gordon Owen, deputy chief executive of Cable & Wireless, the telephone company which owns Mercury Communications in the UK, believes the PTTs are not resisting the use of private satellites simply to frustrate competition and protect their own investment.

He argues that there are genuine concerns about putting Intelsat's dominance in jeopardy. If Intelsat were to collapse, so would the satellite services on which third world countries depend.

Private satellite companies should be licensed to offer ordinary voice telephony services, he says. But they will prove uneconomical on high traffic routes, such as across the Atlantic, where optical fibre cables are now coming into use.

As the price of optical fibres continues to drop, the technology is proving an attractive alternative to satellites for long distance communications. The

position of fibre optics has also been strengthened, in the public eye at least, by the recent state of satellite launch failures.

That said, Mr Goldschmidt believes satellite services will still be a cheaper way of delivering phone services to remote locations, such as oil rigs or rural housing, or for signals which are to be broadcast — such as television signals.

"For video pictures they will be more economical until some time into the next century," he says.

Cable & Wireless, has been one of the main beneficiaries of the liberalisation in worldwide telecommunications. The UK-based company has a stake in one of the two private international cable companies linking Japan with the rest of the world, and has installed the first private optical fibre link between the UK and north America.

But Mr Owen believes further liberalisation is needed in Europe in particular the restrictive systems which still exist in most countries prevent overseas companies from entering the market, while the telephone companies from continental Europe are free to compete in the more liberal environments of the US and the UK.

"In telecoms terms 1992 is not a great opportunity for the UK in Europe," he says. "It's a great opportunity for the Europeans in the UK."

Della Bradshaw



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# INTERNATIONAL TELECOMMUNICATIONS 10

## FACSIMILE

### The paper chase

IN CHICAGO, as in Milton Keynes, you can order a hamburger by facsimile. The UK's TSB bank will send statements to your facsimile machine. And if you are really keen to keep in touch by paper you can be contacted via your facsimile in your car or yacht. General Motors has made a facsimile socket standard on its new Oldsmobile Bravada to be launched in the US in the autumn.

Dataquest, the market researchers, estimate that western Europe bought nearly 1.5m facsimile machines last year. And by 1993 there should be 7.2m machines installed in offices, homes and cars. That represents a market growth of 141 per cent.

Facsimile transmission is old-fashioned and underlines the reasons why businesses use information technology. Although it is much improved since its invention in the 1920s, facsimile transmission is an expensive and wasteful way to send information.

Computers can speed data via telecommunications lines to far-away places much faster than facsimiles without the need for expensive bits of machinery and paper. But the facsimile has beaten its competition because it is so easy to use. And people much prefer sending or receiving a piece of paper to the complicated task of getting computers to talk to each other.

The Japanese have been largely responsible for converting the facsimile from a specialist technology into a consumer product. This came

about because computer and telex-type communications are unsuitable for the Japanese alphabet. The machine is ideal to send urgent business correspondence which, in the East, is still mostly hand-written.

In the West telex was once the best way to send urgent national and international messages. Telex provided com-

**Although it is much improved since its invention in the 1920s, facsimile transmission is an expensive way to send information**

fortable profits for telecommunications companies and improvements, such as teletex, were actively discouraged, which was a big mistake.

Somebody should have thought about the customer who had to put up with the telex machine. This was, for many years, a horrible grey monster that clattered noisily in the corner, printing nothing but capital letters and figures very slowly on grey paper.

Although the machines were re-styled recently, telex was outgunned by the smart, compact facsimile machines that could send anything printed on

paper, including pictures, to anywhere in the world.

Now the facsimile market can be divided roughly into three sectors. First is the relatively small and specialised professional market. For instance, parts of the pre-printed version of this newspaper is sent by facsimile transmission to printing centres around the world.

Second, is the office market. And third is the emerging domestic and mobile sector.

The trend in the office market is away from the use of thermal papers, which curl and discolour, to machines that use plain paper. The more expensive machines use the same technology as found in laser printers. Cheaper devices, such as the Canon Fax-350 at £1,800, use a thermal-transfer technology with plain paper.

Manufacturers talk about combining the four main paper-based office machines: facsimiles, copiers, printers and scanners. These devices together cost US offices \$19bn last year, according to Dataquest.

It would, says the office equipment industry, make financial and logistic sense to integrate the different functions so that one machine will print, copy, scan and fax. And because this machine would be

digital it could be connected to office computer networks.

Although none of these proposed machines have been made, some new office contraptions are showing the way. Ricoh, for example, offers a digital copier, called the DS320 in the US, which can do elementary desktop publishing.

The basic machine costs \$9,950 but \$3,800 worth of extras will turn it into a facsimile with laser-print quality.

Canon has also integrated some functions but it is concentrating on the personal market with its PCJanswer-phone/facsimile, called the Navigator in Continental Europe and the US and the PS3000 in the UK. The Navigator is designed for the executive's desk and the small business. Prices have yet to be announced.

In the home and mobile sector, facsimile makers hope to boost sales by tailoring machines for small businesses

and those people who either work from home or outside the office.

Marketers have some linguistically painful labels for this sector. One is "soho" (small office/home office) and the other is the "outbound workforce".

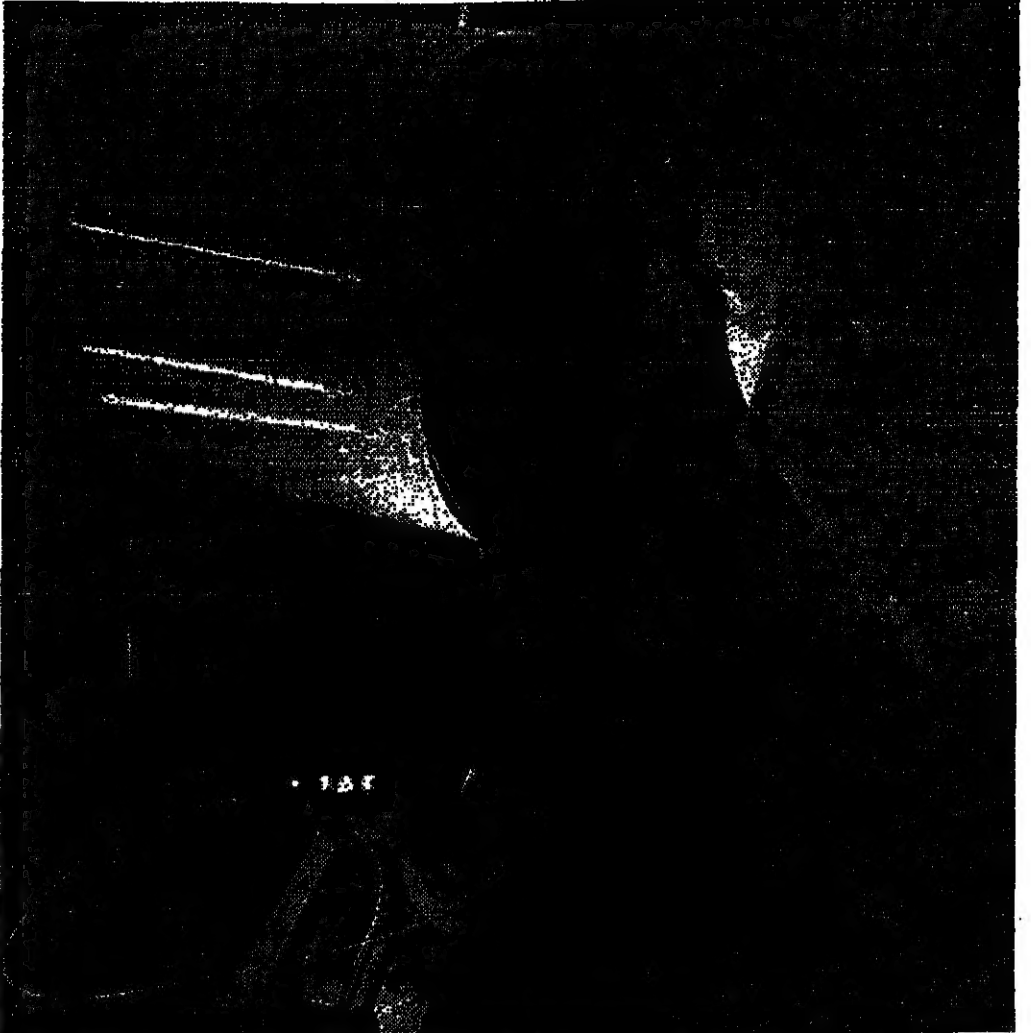
Most facsimile makers and consumer electronics companies, such as Toshiba, Canon, Amstrad and Philips, offer compact machines. In the UK these cost from around £600 and are bought mainly by small businesses.

The British Facsimile Industry Consultative Committee (BFICC) says 206,378 machines were bought in the UK last year. It does not break down its figures into market sectors but the home market is thought to be small.

Manufacturers hope the outbound workforce - travelling representatives, service engineers and peripatetic managers - will provide a ready market for the compact facsimiles and those designed for use with mobile telephones.

It is possible to install a conventional facsimile in a car and link it to the cellular telephone system for just over £300. Some manufacturers, such as Ricoh, make a battery-driven machine especially for mobile use.

British Telecom, for example, is trying to sell facsimile services to emergency services, such as the fire brigade, police and chemical companies, who run their own pollution-monitoring service.



Peter Knight Crystal clear view of fibre optics which are fine enough to pass through the eye of a needle

## Della Bradshaw reports on how private networks can sharpen a multinational's flow of information

### A direct line to international management

IF EMPLOYEES in Sharp's Chesham factory in England want to chat to someone in the Japanese headquarters in Osaka they pick up the telephone and dial the equivalent of an internal telephone number. It is as easy - if possibly not as quick - as calling someone in the next office.

Since December last year, employees in Sharp's US and Canadian offices have also been plugged into the same private telephone network. And from later this year employees in all of Sharp's offices around the world should be able to call any other office using the company's international network.

The logic behind the Sharp move is to make management information available at the same time to all its offices and manufacturing plants.

Sharp is just one of a clutch of Japanese companies which has decided to install global communications networks. Others that have taken the

plunge include Hitachi and the Mitsubishi Corporation, trading arm of the giant Mitsubishi organisation.

But it is not just the Japanese that have decided that global private networking is the route to follow, says Mr Chris Willmott, of management consultants Peat Marwick McLintock.

His company has just finished a worldwide study of global networking, examining the strategies of more than 50 organisations that have opted to go down this route.

From that sample it is clear that there is no set pattern for the type of company that goes in for global networking. Nor do companies from any one

country dominate the list.

What has stunned us is the enormous diversity," says Mr Willmott. "At the end of the day it is the same management issues whether you are in the UK, in the US, in Spain or in Japan."

Some companies, he says, decide to install a global network in order to achieve a specific purpose, and then try to reduce the cost of running the network. Others set out by looking at global networks as a way of reducing their phone bills.

Others, such as ICI, the UK pharmaceuticals company, go for a combination. With manufacturing plants in 40 countries and distribution outlets in 150,

ICI is installing a network to fulfil the business demand for information.

But, says Mr Bob Falconer, network services manager for ICI, everything has to be cost justified.

Like Sharp in Japan, ICI already set up its own private voice and data network on home territory before it conceived plans to expand globally. Mr Falconer estimates this UK network has resulted

in the halving of the company's domestic phone bill - to £10m.

Whereas Sharp has outlined an homogeneous plan to link its 35 plants using high speed digital links, ICI has gone for a more pragmatic approach. It has built a data network linking 15 European countries, but has decided to stick with the ordinary dial-up network for phone conversations.

To the US, there is a dedi-

cated transatlantic "pipe", but once in the US, the lines branch out into AT&T's business network called the custom network option (CNO). That is a half-way house between a private network and the ordinary dial-up network. ICI also has direct links with Japan.

To the other 125 countries in which the company operates ICI uses either ordinary phone services or a third party network, the sort of option many companies are now looking at, particularly in less developed countries.

These services are run by values added service companies such as Electronic Data Systems (EDS) or IBM, which install their own network and

then sell chunks of the capacity to business users.

Each solution has its good points and its bad points. Dial-up services are often of a lower quality than a dedicated line, but setting up a leased line network internationally can entail an untold need for co-operation between national telephone companies.

With third party networks, the customer has no control over the amount of traffic going over the lines. This could result in heavy traffic causing split-second delays in the call. Although that is not noticeable with voice calls, it can be a problem with sensitive computer data.

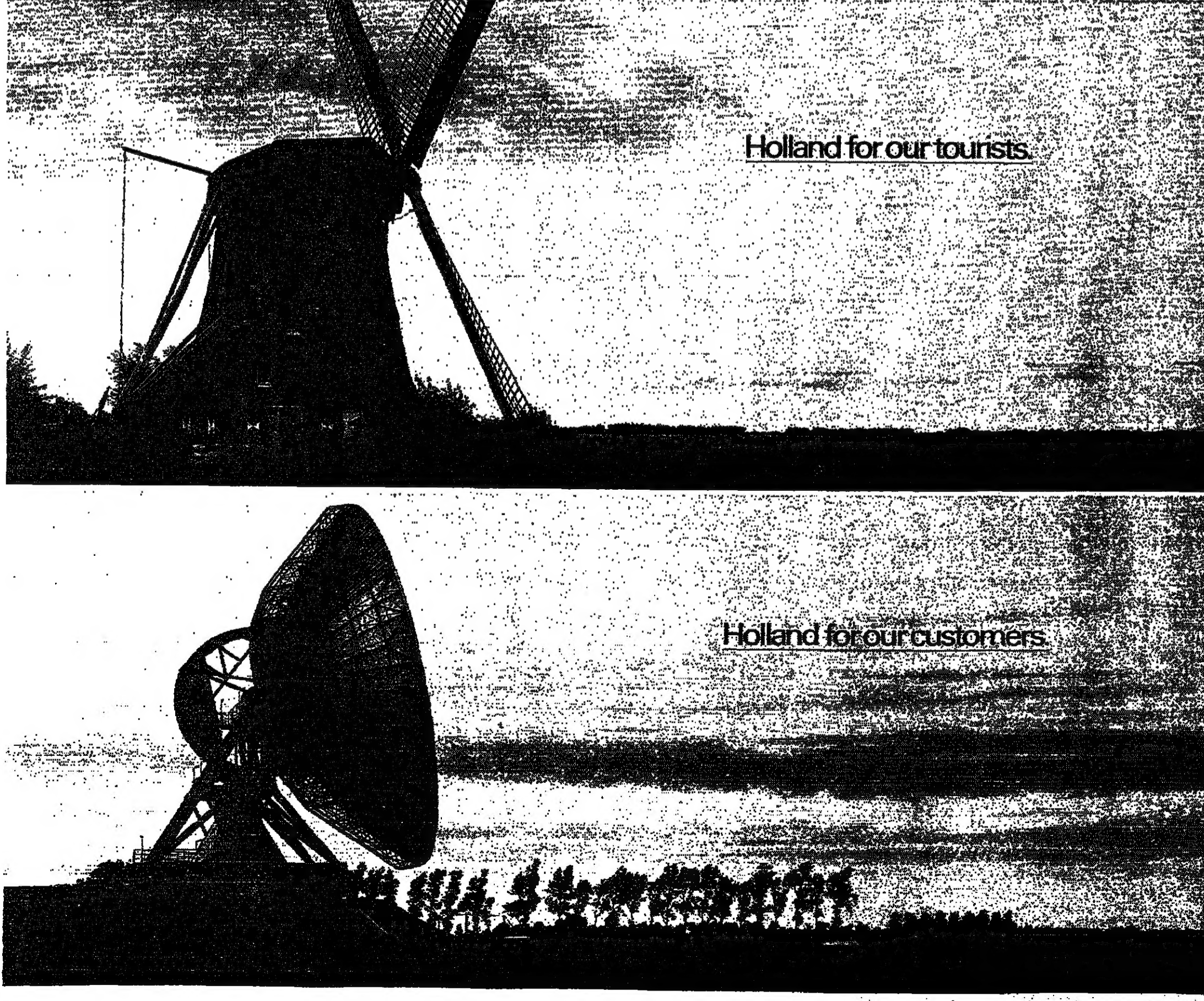
Whichever approach is

taken, companies face the problem of the differing levels of technological competence in the different countries, and the varying regulatory issues and, in particular, tariffs.

For even the most dedicated company, working out how to get the cheapest call rates can result in employees tearing their hair out.

In the US and UK telephone companies have - to some degree - to relate their prices to their costs. But elsewhere, political considerations often result in one service subsidising another.

In addition, there are the problems of managing a network on a worldwide scale. In the case of a Japanese company, for example, there is the pure logistical problem faced when there is a problem with the network in the UK. Who should the UK employees call in Japan? And when he or she does so, will it be in the middle of the night?



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## INTERNATIONAL TELECOMMUNICATIONS 11

Paul Taylor on the expanding market for value added services

## The age of electronic trading

Imagine. It is June 1990. Ben Smith knows it is because the small video screen next to his bed has just flickered into life. As well as the time and date, the screen gives Ben the business news headlines, the weather forecast and tells him he has video mail and a message from his Tokyo office waiting.

Ben reads his mail. Aside from the bills, including the rental on his three-story house, there is the usual junk electronic mail. Ben throws most of it away, but keeps a special offer from VW-Trabant, the German personal transportation giant.

After replying to the Tokyo message, Ben "snaps" the excess cash in his Swiss bank current account into a high-interest, bearing account in London, transfers it to his electronic broker, which is featured in his customised electronic newspaper, and takes a laser print-out of the paper's front page downstairs to breakfast.

After filing the report he completed the previous evening on his home terminal - complete with video graphics - down the modem-less telephone line via a packet switching service at 9600baud, Ben sends a message to tell his secretary he will be late for work. He then dials up the car dealer database and downloads price information on the new VW-Trabant electric car.

Logged into the dealer of his choice he orders a red metallic model with a satellite guidance system. Milliseconds later his bank credit account in Switzerland is debited, somewhere in eastern central Europe a robot arm selects metallic red and spray-paints the car just coming off the end of the fully automated production line. In VW-Trabant's Antilles headquarters a computer simultaneously dials a delivery service, the Greater EC customs HQ in Berlin, the Driver and Vehicle Licensing Centre in Cardiff and Ben's home terminal.

All receive a standardised delivery note containing a customs clearance and other other documentation. Ben sets off for work knowing his new car will be delivered to his home the following day, taxed and paid for. Imagine.

Of course the start to Ben Smith's day 10 years hence is fantasy. But most of the tele-

phone wizardry he would require is already in place, supplied by the operators and providers of value-added (network) services, Vans or Vans in technical jargon.

Although there is nothing particularly mysterious about value added services - they are one of the fastest growing segments of a booming business telecommunications sector - no one quite seems able to define them.

The speaking clock is arguably a value added service but normally the "Vas" label is reserved for digital telecommunications over network telephone lines where information, usually in computer data form, is manipulated (value added) in some way. Vas can help reduce costs, speed up commercial transactions and eliminate errors using a combination of telecommunications and computer technologies.

Value added services (ECU/m)					
	1988	1989	1990	1992	1994
Western Europe	2,300	3,215	4,540	8,235	12,550
West Germany	210	300	435	865	1,445
France	405	580	830	1,430	2,275
United Kingdom	970	1,225	1,635	2,190	2,830
Italy	180	220	355	750	1,285
Spain	75	120	210	615	1,245
Sweden	150	230	355	885	940
Rest of Europe	380	540	820	1,670	2,530

Source: Communications & Information Technology Research

By far the biggest segment of the Vas market is represented by online information services, like Reuters. PA Consulting Group, the London-based computers and telecommunications analysts, suggest information services represent about two-thirds of a European market worth almost \$3bn last year. Messaging services, which include electronic mail, store-and-forward systems and Electronic Data Interchange (like the imaginary VW-Trabant generated customs declaration) are estimated to represent around a fifth of the market. EDI enables governments and companies to exchange orders and bills electronically in standard formats and have been pioneered in the transport, retailing, and insurance industries.

A third segment comprising processing services like airline reservation systems, interbanking systems and electronic funds transfer account

for about 6 per cent of the market. The remaining 8 per cent is accounted for by other data services supplied over public or private networks.

Analysts agree that the Vas market, having promised much but delivered disappointingly little for years, is finally coming of age and substantially outpacing growth in basic telephone services.

London-based Communications and Information Technology (CIT) Research estimates that the market for Vas will grow from a modest \$2.3bn in 1988 to \$21.55bn in 1994. "CIT estimates that by 1994 total revenues from non-PSDN (Public Service Telephone Network) Basic Network Services will have almost doubled. But the highest area of growth is expected to be in value added services."

The deregulated US market has led the way in the Vas

boom and the UK followed. The UK currently accounts for about a third of the European Vas marketplace but France and West Germany are catching up.

Several factors explain this explosion of activity. On the demand side customers as diverse as car manufacturers, international banks, DIY stores and food retailers are demanding access to sophisticated data communications networks and "paperless trading" technologies in order to cut costs, improve efficiency and compete more effectively domestically and internationally. Banks, transportation operators, governments and information providers have been in the vanguard.

Suppliers, too, are banking on the regulatory doors - and forming new strategic alliances. Among the leading US Vas providers bidding for chunks of the emerging European market are IBM, General

Electric's GEIS, General Motors' EDS subsidiary, US Sprint's Telenet, and Tymnet (acquired by BT last year) together with European operations like Intel, the UK specialist telecommunications software company acquired by AT&T last year in a move widely seen as a strategic push into the European services market.

Similarly the acquisition of equity stakes in US-based information by a group of European PTTs is regarded as a protective move enabling them to provide Vas to customers with pan-European or worldwide requirements.

Under pressure, particularly from the EC Commission, the regulatory environment in Europe is also changing. Last year the Commission forced through several key directives aimed at opening up the European business communications markets to greater competition.

In December a telecommunications services directive was approved liberalising competition in value added services later this year, together with the sister pan-European Provision (ONP) directive which seeks to harmonise their provision across the Community. The Commission has also acted against a price fixing recommendation for leased lines employed by CEPT, the club of Europe's telephone operators.

The logic behind the EC drive, supported by the UK, West Germany, Denmark and the Netherlands but resisted by France and the poorer Mediterranean EC members, is simple. The Commission believes that EC resident companies must have access to Vas at competitive prices in order to compete more effectively. Most customers endorse this objective, even if some national PTTs are dragging their feet.

Such rearward action seems unlikely to halt the expansion of value added telephone services. Indeed the increasingly dubious distinction between basic telephone services and value added services may itself eventually disappear as fiber-optic-based digital telecoms systems spread. "We are moving towards what I call an electronic trading system," says Mr Don Eungblut of PA Consulting. Ben Smith's year 2000 breakfast may yet become reality.

The Caller ID function has given rise to a stormy debate over who has the greater right to privacy: the caller or the called

## Enter the civil rights factor

FOR OVER a year, newspapers in the US have been the arena for a debate which has at times reached fever pitch. It is hardly surprising that tempers have flared as the debate, inspired by technological changes in the telephone system, is essentially one about civil rights. And it is putting one group of civil rights activists against another.

At the centre of the controversy is a simple function which allows recipients of telephone calls to see who they are being called by before answering the telephone. This so-called Caller ID function is available on all modern digital telephone networks but only a few operators of such networks have decided to exploit it. It has given rise, however, to a debate over who has the greater right to privacy; the caller or the called.

According to Mr Harold Greene, the district court judge who made history in the 1980s by presiding over the break-up of AT&T, the called party's right to privacy is greater than that of the caller. For him, Caller ID is a "truly revolutionary" device which returns control of the phone to its owner from its long domination by every salesman, solicitor or crackpot who decides to call at any hour of the day or night.

But for US Senator Herb Kohl, Caller ID not only compromises the "legitimate privacy of callers" but can also diminish the privacy of call recipients. "Callers are forced to give up their numbers - and consequently their addresses - every time they pick up their phone," he notes. This, he says, is likely to give rise to - rather than prevent - unsolicited calls as well as add to the torrent of junk mail which already pours into the mail boxes of America.

The American Civil Liberties Union has also been quick to react to the issues raised by Caller ID and it has come down on the side of Senator Kohl. Caller ID, it states, is an unacceptable invasion of privacy. Nevertheless similar objections by state level public or consumer advocate offices have been overruled by both the New Jersey and Pennsylvania Public Utility Commissions.

And in California the provision of Caller ID services has also been given the go-ahead, albeit with the rider that anyone offering such a service must also offer a blocking option - a so-called secrecy switch.

The secrecy switch is an issue which although designed as a compromise is itself creating a new controversy. In particular, those who are interested in promoting Caller ID as a means of reducing obscene telephone calls regard it as unnecessary.

Ms Sandy Granzo, of US regional telephone service operator Bell Atlantic, describes the secrecy switch as pointless. "It dilutes the service - it's counter-productive. All an obscene caller will do is block giving out his number," she notes. Bell Atlantic is working with police departments, undercover agencies

and spouses abuse centres to work out ways of allowing some numbers to be blocked.

The argument for Caller ID offered by those concerned about obscene and threatening telephone calls is the most compelling. Earlier this month the results of the first systematic survey of the impact of Caller ID on obscene telephone calls was published in the respected Security Journal. In it Mr Ronald Clarke, Professor and Dean of the School of Criminal Justice, State University of New Jersey, found that in spite of a take-up rate for Caller ID service of only 2 per cent in New Jersey, the incidence of annoyance and obscene telephone calls reported to the New Jersey Bell Annoyance Call Bureau fell by at least 25 per cent.

Without doubt some people will suffer a loss of privacy, admits Mr Clarke, but others will gain. "The costs are no where near as much as the gains," he says.

The need to find some way of combatting telephone abuse is also bringing the Caller ID

debate to Europe. According to the Office of Telecommunications (OfTel), the UK's telecommunications watchdog, some 10m women receive threatening calls a year.

Ms Mildred Gordon, MP, who has been campaigning to bring the issue of obscene telephone calls to the attention of Parliament, believes that this figure may be closer to 20m. Telephone abuse, she says, is "a form of violence against women which is very widespread."

"I've had hundreds of letters from women telling me how nuisance calls have made their lives a misery - some have even been pushed to the brink of nervous breakdowns," she says. She is urging OfTel to take a role in combatting obscene telephone callers. And according to OfTel's Mr David Reading, she is finding some suc-

cess. "Obscene phone calls are not a part of OfTel's remit - really a matter for the police or the Home Office - but the director general believes it is a serious problem that cannot be ignored. We are urging British Telecom to make the best possible use of technologies to help try and solve this problem."

Unlike the US, in Europe worries about privacy problems are less over Caller ID and more over the data retained about subscribers' calling activities in the network itself. Ms Nettie Pollard, of the UK's National Council of Civil Liberties, does not see "any particular civil rights" problem with services such as Caller ID. "Itemised billing is another issue," she notes.

In West Germany, too, the Caller ID question is not causing too much of a problem. Mindful of the controversy in the US, the country's leading carrier, Telekom, has decided to allow users of its new Integrated Services Digital Network to decide whether or not to show their numbers to the

people they are calling - although they must inform Telekom of their decision in writing, which as critics point out is hardly a flexible solution. Again it is the question of itemised billing which is causing most problems, particularly with those interested in data protection issues. In a recent report, West Germany's Federal Data Protection Agency defined the right to unobserved communications as a basic right. Itemised billing, with its paper-based record of who calls who, when and how long for, the agency says, threatens this. Telekom argues that it needs to retain call information both to counter account queries (of which it says it receives some 500,000 for the 30m or so bills sent out each month) and to be able to monitor traffic loads.

Dr Werner Schmidt, head of the information technology section of the Federal Data Protection Agency, disagrees. "In order for Telekom to provide an audit trail or to measure traffic loads, all that would be necessary is the retention of the STD code and the first digit of the dialled number," he notes.

His agency is currently talking to Telekom about a way of solving their disagreement but, so far, he says he has encountered much resistance. If no informal agreement can be made with Telekom, he says he will look for new legislation to do the job.

In the UK, legislation may also be an option but to those campaigning to use new technology to prevent the telephone harassment of women, it would be a last resort. The campaigners' preference would be for a public discussion about the best ways to use the new technology.

"We're entering a new period of the use of the telephone - the discussion about how this should be approached should be in the public domain," says Ms Gordon. She is confident that given the right amount of attention, technology can help stop telephone harassment. "It can be done, and it can be done without infringing civil liberties," she says.

Peter Purlton

## THE EVOLUTION OF THE MESSAGE.

As they leap in the water, dolphins "speak" to one another, using sounds and frequencies that are often too high for the human ear to hear. In the language of physics, the dolphins are employing an acoustic channel to transmit a sonic code. Human beings need even more sophisticated means of communication - systems that can transmit not only words, but images and data as well. That's where Telettra comes in. As an industry leader in advanced telecommunication systems. On five continents, Telettra's engineers are building public and private network systems with the unique Telettra expertise and know-how. In Europe and Australia. In North and South America. In Africa. Telettra is a global company with sales of over \$1,200 million. And we have another \$180 million in capital investments - to say nothing of 1,800 expert scientists - at work for us to design and build outstanding high-tech systems, including prototypes for the integrated networks of the future. Innovation and global quality to leap every barrier, to improve our way of life. Telettra - Communication in progress.



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## INTERNATIONAL TELECOMMUNICATIONS 12

John Williamson looks at tomorrow's 'intelligent' telephone systems

## New tricks for the old networks

LAST year the UK telecommunications company GPT made a world record attempt on the highest number of simultaneous calls that could be handled by a telephone exchange. The target was 1.5m in an hour. In the event, the System X exchange handled 1,558,000 busy hour calls attempts (BHCA), or more than 430 each second.

Of far greater consequence than the place secured for GPT in the Guinness Book of Records was the demonstration of the processing power which System X could bring to the so-called "intelligent" telephone networks of the future. "In setting the record, GPT has laid down a worldwide standard for exchange throughput which will become the benchmark that other suppliers will have to meet," claimed Mr John Ziemniak, GPT's director of engineering at the time. "As far as we are aware, no one else in the world has so far demonstrated more than 600,000 BHCA's."

Intelligent Networks (INs) use powerful exchanges such as System X connected to a small number of centralised databases. At first sight what they do is not exciting. An IN is a way of providing flexibility of numbering, routing, charging and billing in the telephone network.

However, permutations on the traditional network function of connecting one caller to another, and billing the former for the privilege, allows customers to tailor basic services to their individual needs. It also generates millions of pounds worth of additional revenue for telephone operators.

The UK's "freephone" service, for example, has more 5,500 corporate clients who pay to receive calls which otherwise might not have been made. This service is run on exchanges provided by AT&T and currently handles around 500,000 calls each day. BT has invested more than £100m in its freephone network and in recent improvements to the service. A spokesman said UK rates of growth for toll-free calling were now higher than in the US, where the service was pioneered.

Extrapolating from the US experience, AT&T Network Systems International says

that annual income from an IN service such as advanced freephone can run into hundreds of millions of dollars within a few years of its introduction. In addition to systems in the UK and US, AT&T is delivering a network in Spain.

As well as toll-free calling, IN services include automatic call distribution and transfer to alternate destinations, private telecommunications networks provided over public lines, private switchboard services from public telephone exchanges, and polling and market research based on tallying calls to particular publishing numbers. In Denmark, INs have even been proposed as a means of automating state lotteries.

Along with the generation of additional revenues, INs are popular with telephone companies because they can be implemented at relatively low cost without significant disruptions to normal network operations. France is planning three differ-

ent IN applications, all of which will run on Alcatel E10 switches.

Where INs use centralised databases, new services can be introduced more rapidly than would be the case if all exchanges had to be equipped with the same additional computing power. This speed of response is a useful attribute where an operator is faced with network competition from new carriers. It helps explain why INs are taking root first in countries such as Japan, the UK and the US which liberalised their telecommunications supply regimes early on.

The IN concept is similarly welcomed by telephone switch manufacturers such as Alcatel, AT&T, GPT and Siemens. They see it both as a new parallel market opportunity for their established businesses, and as a possible means of breaking into national markets from which their hardware was previously excluded. "We recognise this to be very important

and consider it a core product," commented Ericsson Telecom's Goran Nordquist at a launch of its TMOS IN system earlier this year.

However, as well as commercial opportunities, INs pose some problems for operators and exchange manufacturers.

An IN implies relinquishing some degree of network control to customers, a prospect not welcomed by all PTIs. Moreover, depending on the regulatory regime in force in the particular country, an IN can open up the market to new non-PTI niche service suppliers.

The technology is also to some extent switch-independent, making it possible for PTIs to ignore existing relationships with switch suppliers when building their INs.

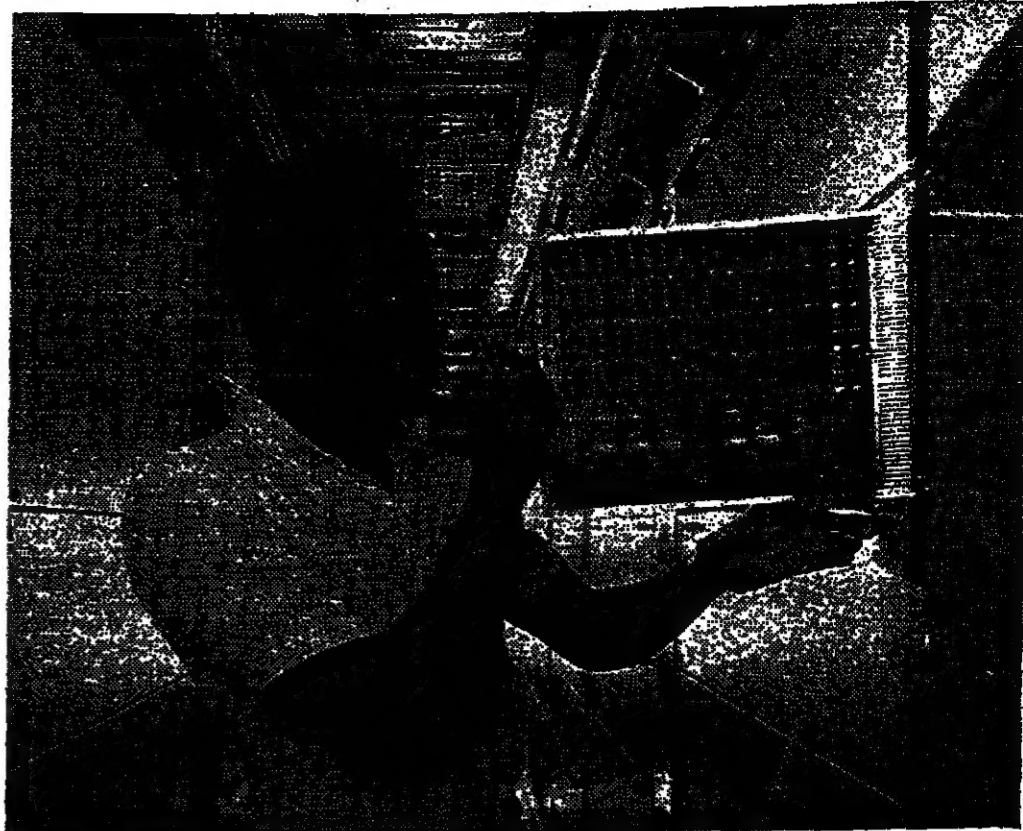
Meanwhile, new categories of players are appearing to contend for IN business. Some of the spoils of the emerging market have already gone to transmission companies such as STC which are not in the

switching business. As the role of database nodes in the IN increases, the computer giants are muscling in as well.

The international growth rate of INs will depend on the overall speed and extent of conventional network modernisation to provide such necessary facilities as nationwide itemised billing. It will also be affected by progress in defining international standards.

US companies have already played a large part in supplying the hardware for European INs, and there has been US/European collaboration involving groups such as IBM, Bell Atlantic International and Siemens, DEC and Siemens and IBM and LM Ericsson.

The Americans are also setting much of the international standardisation agenda, although the UK's recent backing of Personal Communication Networks - a specific form of IN - has provided a boost to European efforts.



An engineer with the sophisticated System X hardware which can handle 430 calls a second

Robert Palmer explores the problems raised by technological advances

## User unfriendly hackers highlight flaws

THE sentencing of Mr Robert Morris in May last year is an event that will be viewed with great interest by many in the telecommunications industry. Having already been convicted of breaking into the US Internet network and causing disruption, the world's most famous hacker now faces up to five years in jail and a possible fine of \$250,000 (£153,000).

Mr Morris maintains he was conducting a harmless experiment. Whether hackers are viewed as innocent pranksters or reckless criminals, however, the case serves to highlight the gravity of the problems facing providers and users of telecommunications networks.

As telecommunications become considerably more important in business, so the possibilities for malicious interference have multiplied. With millions of pounds now being transferred over electronic funds transfer systems daily, there is every incentive for criminals to turn to this line of business.

Privacy, too, is a key issue. In particular, the rapid introduction of new technologies such as cordless telephones and cellular communications has opened a number of security problems. How, for example, do you ensure the privacy of a call made from a car phone, when it is effectively broadcast nationwide over the cellular network?

"It is impossible to stop people listening in," says Mr Terry Barwick of Racal. "However, the nature of cellular networks makes it very difficult indeed. As transmission and reception are carried out on two different frequencies, sophisticated equipment would be needed to tune in to a complete conversation. Also, the frequencies change each time you cross a cell boundary, adding to the difficulties."

At home, cordless telephones can also be subject to eavesdropping. As the frequency allocated to these telephones is just off the end of the medium wave band, it is possible to

pick up signals on a conventional radio receiver.

Mr Charles Hughes, professor of telecommunications at the University of Essex, believes this should not represent a serious problem, as most handsets have a range of less than 10 yards. But if a call is made from a high vantage point, perhaps a house on a hill or a tall building, the signal could travel much further.

"The problem will become much less severe when we move on to the next generation of cordless telephones, CT2," he says. "Because this technology will be based on digital rather than analogue communications, it will be much easier to build in higher levels of security."

Another advance in technology, the introduction of an Integrated Services Digital Network (ISDN), also brings the promise of greater security and better privacy. As well as offering much higher capacity for both voice and data services, ISDN networks employ a differ-

ent method of coding to conventional analogue networks - making interception much more difficult.

Making analogue systems secure can be an expensive business, with a secure telephone costing perhaps 10 times as much as a conventional one. In digital networks, however, security can be built in at minimal cost.

**Security can be an expensive business: a secure telephone can cost 10 times as much as a conventional one**

As a result, Mr Dennis Willetts, head of electronic systems security at British Telecom, expects security to become a more integral part of the telecommunications system in the near future.

"The emphasis in the past has been on providing any

kind of service when a new technology is introduced.

"But when we move on to the next generation of equipment, we will be able to solve these problems. As we introduce digital equipment right through to the customer's door, it becomes easier to meet the customer's requirements for cost-effective security."

These requirements are sure to become more stringent as the use of telecommunications networks increases.

At the moment, for example, only a small percentage of business transactions are handled over data networks, using electronic data interchange (EDI). As these transactions are usually between members of small, clearly defined groups, the level of security available is often adequate.

However, if EDI becomes a more important form of trading in the future - perhaps even the dominant one - then the whole issue of security will need to be re-examined. A network that is to be entrusted

with high volumes of important, confidential transactions must offer a high level of protection against abuse.

Modern digital networks promise a great deal in terms of new services, but some of these new services themselves create privacy problems. Calling Line Identification, which enables the user to see the number of a caller before picking up the telephone, is sure to be a great asset to the receiver of the call. But for the caller, the anonymity of location is removed.

An employee who wishes his boss to believe he is ringing from, say, a district office when he is actually somewhere else may find this new service rather less than enticing. While this may make more honest citizens of us all, it could also be construed as an invasion of personal liberty.

As Mr David Lewin, of computer consultants Ovum points out, every technological advance presents difficulties as well as benefits.

"You could view the telephone itself as an invasion of privacy," he says. "Anyone with a telephone is vulnerable to unwanted calls, but the disadvantage is small compared to the benefits. There is a trade-off between the two."

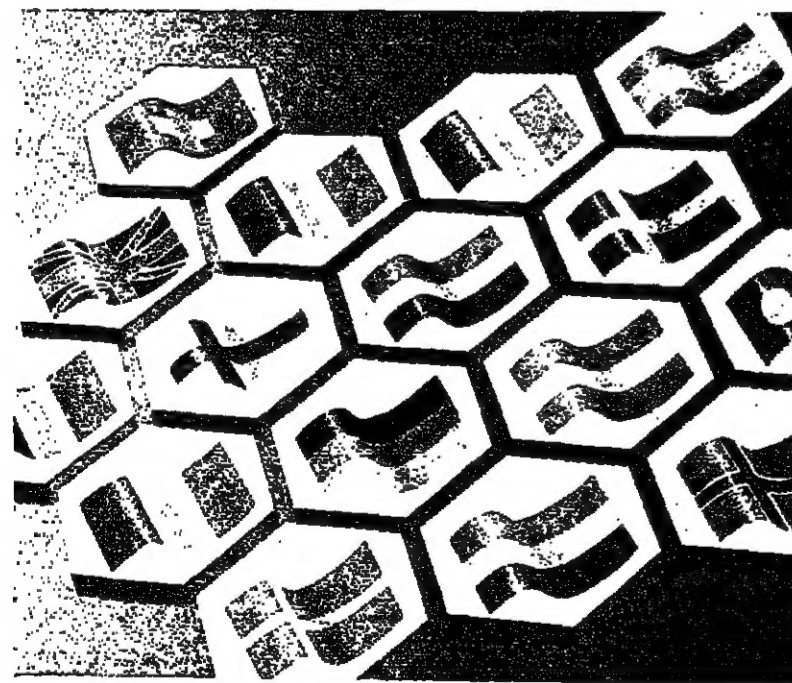
He sees a similar trade-off developing with the introduction of personal numbering systems. Under this type of system, an individual is allocated a single personal telephone number. A caller needs only to dial this number to be routed automatically to the person concerned - at home, in the office, or even in the car.

"There is a very substantial privacy problem with personal numbering systems. Once you have given your number out, you can find it very difficult to get away from an unwanted caller. It is very important that the user has a considerable degree of choice over the way the number is used."

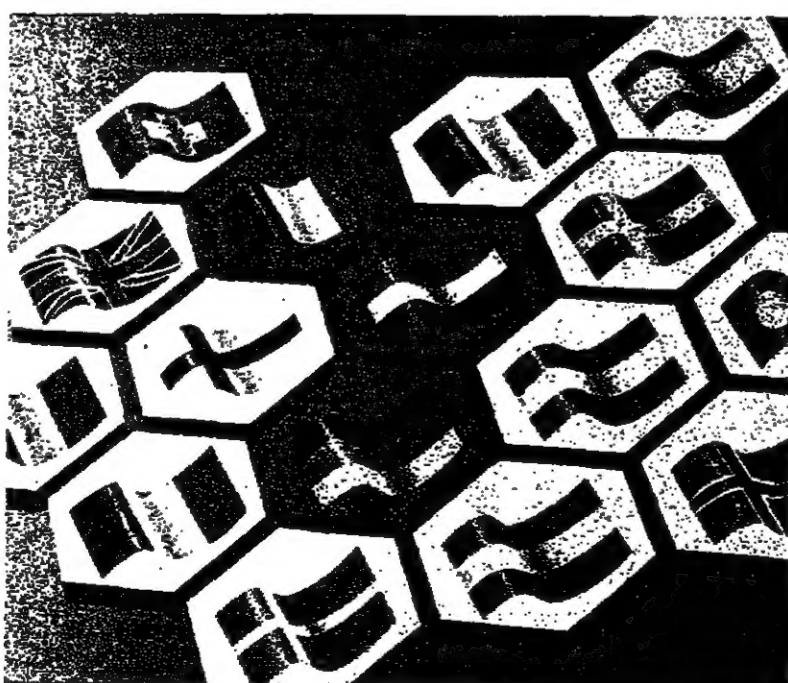
Fortunately, it is possible to provide this control. The user can control the database which determines where calls are routed. Consequently, it would be possible to take calls for just a few hours a day, with other calls being picked up by an answering machine.

As telecommunications networks develop, security and privacy issues are sure to become even more important. But with security technology itself advancing rapidly, almost certainly the problems will be small compared with the benefits modern communications systems can bring.

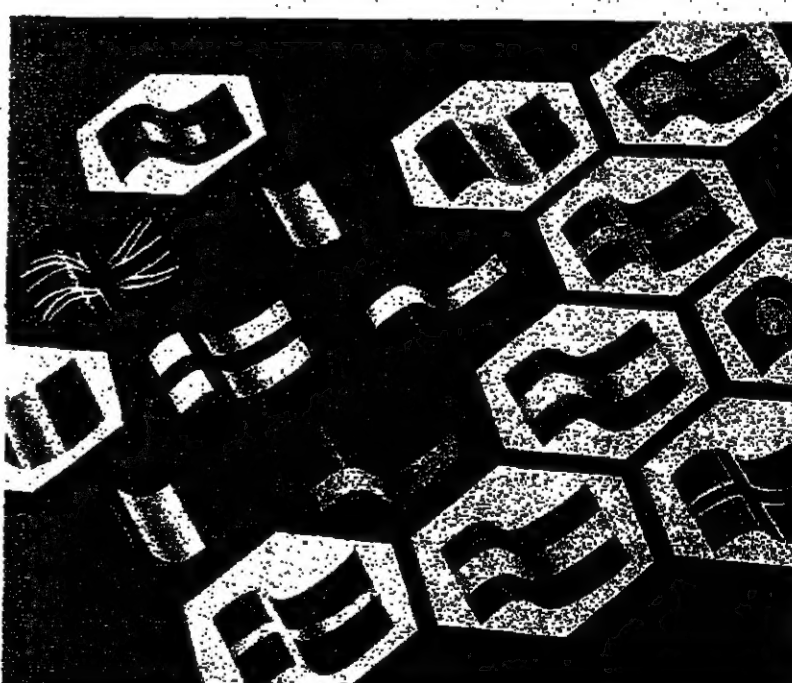
## We're getting there!



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## ECR 900 goes from strength to strength

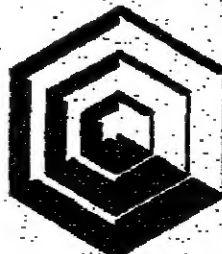
In 1987 AEG, Nokia and Alcatel joined forces to form the European Cellular Radio consortium ECR 900. The task: to develop digital cellular radio equipment for the pan-European cellular radio. More than twenty European administrations and network operators have committed to the implementation of the network in the early Nineties. ECR 900 system elements will be used already for network equipment from the Federal Republic of

Germany, Finland, France, Great Britain, Italy and the Netherlands - with public service scheduled to begin in 1991.

Forecasts predict that by the year 2000 over 10 million Europeans will own a digital mobile phone. Free to move anywhere in Europe, taking their telephone with them. And ECR 900 is playing a major role in making it all happen. ECR 900 - that's the spirit of Europe.

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